DRAGONSTAR™

IMPERIAL SUPPLY™

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Introduction

Fantasy Flight Games is pleased to present the first supplement for **Dragonstar**, the space fantasy campaign setting designed for the d20 System. This book, *Imperial Supply*, is a valuable resource for both players and DMs and the perfect complement to the *Starfarer's Handbook* and *Guide to the Galaxy*.

Imperial Supply is a compendium of high-tech equipment, weapons, armor, robots, and vehicles. Within these pages, you'll find items common in every household and adventurer's pack in the Empire. You'll also find specialized devices that only a select few have the expertise to use, along with exotic items from the edge of the Outlands and the depths of the Dark Zone.

How To Use This Book

Imperial Supply is designed for both players and DMs. The book presents new equipment options for both player characters and non-player characters, as well as new technologies a DM can incorporate into his campaign. To use the book effectively, you'll need the d20 System core rules and the **Dragonstar** *Starfarer's Handbook*. The *Guide to the Galaxy* will also be helpful for background information and setting context.

The Open Game License

Imperial Supply is published under the terms of the Open Game License and the d20 System Trademark License. The OGL allows us to use the d20 System core rules and to publish game products derived from and compatible with those rules.

In fact, all rules-related material is designated as Open Game Content. You can use this material in your own works, as long as you follow the conditions of the Open Game License.

Not everything in this book is open, however. The names of the equipment and devices in this book, along with the game mechanics and stat blocks describing them and all game rules and statistics derived fom the d20 System SRD, are designated as open game content. Background and setting information are designated as closed content.

The following are designated as Product Identity pursuant to section 1(e) of the Open Game License, included in full at the end of this book: the **Dragonstar** name, logo, and trademark, the graphic design and trade dress of this book and all other products in the **Dragonstar** line, all graphics, illustrations, and diagrams in this book, and the names Mezzenbone, Khelorn, Lazalius, Shul, Bazzrit, Asamet, and Qesemet.

Chapter One

Hardware

Computers

Brainport: This device integrates a brain with a data device. Other ports may connect the brain to other devices. Brainports are neurological medical prosthetics, and are handled by the rules governing other prosthetics. A full brainport is considered a significant upgrade, while other brainports are small upgrades. The XP cost is half of the cost in credits. Soulmechs may also purchase brainports as upgrades, with half the credit cost and XP cost. Their neural networks are designed for modularity, so such improvements are normal upgrades.

Projective versions of brainports rely on short-range EM projectors. They can tap into the brain without the need for implants. The cost is 10 times that of a normal brainport, and such devices weigh 20 to 50 lbs. Port projectors are capable of being used indefinitely, barring periodic maintenance.

An *output brainport* transmits a limited amount of information from the brain to other devices. Possible output includes movement and position of the body, movements or operation of the voice box, what the character hears or sees, and so on. Taste, touch, and smell are transmitted, but the output is a bit flat and indistinct. This device is a common first step for characters interested in immersive information. An output brainport increases the circumstance bonuses gained from a datapad or other device to +3.

An *input brainport* transfers information from a device to the user's brain. The character sees, feels, and hears relayed data. The most common use of input brainports is passive immersion. The character experiences the lives of actors or regular people through the port. An input port increases circumstance bonuses from datapads and other devices to +3.

IO brainports transmit information to and from the brain. This is the port of choice for serious hackers, allowing them to live and breath information and code. It also can leave them vulnerable to outside manipulation. Most hackers have a physical port leading from an IO brainport to a datapad. Otherwise, another hacker could access their brainport directly. IO brainports negate the –4 penalty on attack rolls for operating robots or other remote devices. When used with a datapad, it increases circumstance bonuses to +4.

Full brainports are dangerous and considered restricted technology in the Empire. With a full brainport, thoughts and impressions, memories, and every sensations can be transmitted. The port offers incredible bandwidth to communicate such detailed information. A full brainport confers all the benefits of an IO brainport and also supports the use of skill chips.

The dangers to a full brainport user from hacking are staggering. At the very least, a hacked full brainport allows others to monitor the character's brain. A hacker could conceivably stop the character's heart, immerse him in searing pain, or obliterate memories, all within a few seconds. Those who rely on the port for skill chips usually use fixed physical ports, to prevent hacking from a distance.

Dataports: Ports provide communication between different devices. Even weapons and armor may conceivably have dataports. They are also capable of transferring low levels of energy to components, and can be used to recharge items with small cells.

Ports come in several varieties: physical, short-range transceiver, or inducted transceiver. Each has

advantages and disadvantages. A character can add a port to a datapad or other device by making a Repair check (DC 15). Secure devices may be designed to only accept a certain number of ports. Adding ports for these devices requires a Repair check (DC 20).

A personal communicator can be linked to a personal network of devices, allowing datapads and other equipment to communicate with other devices and networks over considerable ranges. The datapad's standard wireless modem is usually sufficient unless the character is far from civilization.

Thin fiber-optic cables connect *physical ports*. The biggest advantage of physical ports is that they do not show up in passive area scans and are nearly impossible to tap into from a distance. Physical ports are quite cheap, at 1 dek per port or five-foot length of cable, and derive any needed power from the devices they connect. Physical ports can even be integrated in clothing, though this doubles the cost of the clothing. These integrated ports allow the user to create a personal network connecting many different devices worn or carried on his person.

Short-range transceivers have a range of five feet. No cabling is necessary, and these ports can adapt to new equipment easily. Also, if only one device is going to be accessed at a time, only one port is needed per device. A datapad using a short-range transceiver port can switch between peripherals as needed.

Short-range transceivers are somewhat difficult to detect with security devices (+5 to DCs), as they are simple devices that use very little power. They are vulnerable to hacking from a distance, and are disrupted by signal jammers. A short-range transceiver costs 3 deks, and derives the small amount of power it needs from the device it is connected to. If a transceiver is on an unpowered device, an integral power source can easily handle its power needs for months at a time.

Inducted transceivers rely on the low-energy electric fields emitted by most devices. Living beings, soulmechs, and robots have different types of fields, but these transceivers can handle these differences easily. The transceiver essentially uses the body as a medium of transmission. The transmission only works in a relatively standard atmosphere, though these devices can function properly within a sealed suit. This dataport otherwise functions like a short-range transceiver. The advantage of the inducted transceiver is that it is difficult to hack (DC +10) and cheap. It also draws the miniscule amount of power it needs from the movement of the wearer.

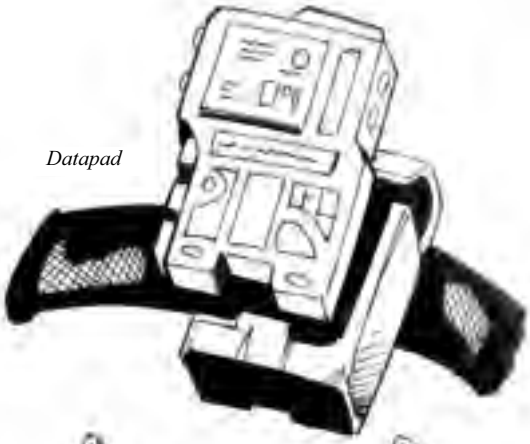
Networked transceivers are a blend of ports. They rely on special clothing or materials as a transmission medium and have an extreme short range beyond that. The advantage of this system is that it is difficult to hack (DC +10) and can function in any environment. Networked transceivers are somewhat affected by signal jammers. Despite the higher cost, this is the system of choice for security-minded characters. It draws any power needed from linked devices or movement.

Digital glasses: These are simple display devices, suitable for use with datapads and other devices. Digital glasses are equipped with a physical port, and additional ports can be added.

Diplomat's board: A diplomat's board looks like an oversized datapad large enough to cradle in one's arm. It combines the functions of a language translator, personal communicator, behavior analyzer, and datapad in one package specifically tailored for diplomatic situations. The unit's flatscreen view panel allows a skilled diplomat to casually glance at information or input data without others taking much notice.

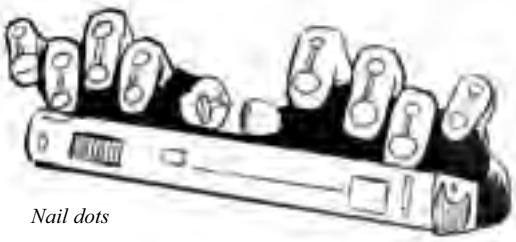
As a datapad with information input and retrieval functions, it provides a +2 circumstance bonus to related skill checks that depend primarily on information. The board's datapad functions come hardwired with datachips for the Imperial Encyclopedia (Knowledge: geography and history), Taxinom's Universal Etiquette (Diplomacy), and the Unification Bible (Knowledge: religion). A datachip port can download the contents of up to 10 additional programs. An integrated comm modem and hardwired port also allow data transmission and information download.

The designers realized that many foreign beings distrust language translators and their electronic speakers. Although the board's integrated translator can provide the same audio input/output that a standard translator headset can, its default function interfaces completely through the flatscreen display. Language programs translate incoming speech and display it on the flatscreen (with appropriate pronunciation tips) for the diplomat to speak himself. A language context program works with the board's sensory functions to offer a more nuanced translation for conversations. The device's protocol programming then shows several response options based on previously translated remarks, context parameters, and any additional notes the diplomat inputs. Assuming the diplomat reads the flatscreen translations and speaks them himself, he suffers only a –1 circumstance penalty on skill checks that rely on language ability (including Bluff, Diplomacy, and Peform). He suffers a –3 penalty on such checks should he switch the board's translator function over to that of a standard language translator that speaks for him through the

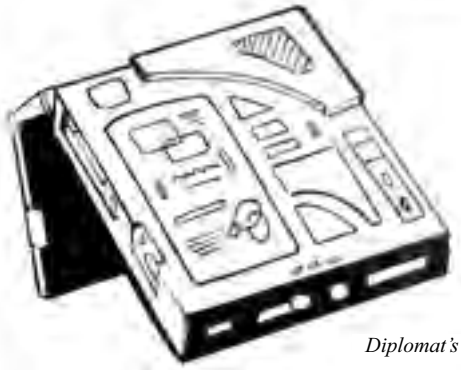


Datapad

I/O glasses



Nail dots



Diplomat's board

Runevisor

integrated speaker.

The board's personal communicator allows the diplomat to interact quietly with someone else at a remote location through the flatscreen interface. An off-site diplomat can read translated conversations from an envoy with the unit, and transmit his own responses for the envoy to read. The communicator also has an integrated speaker/microphone to allow voice communication.

The board's behavior analyzer takes readings through several concealed sensor ports. It measures fluctuations in pheromones, voice patterns, and bioelectrical fields of subjects within seven feet of the board's front panel. This provides a +2 circumstance bonus on Sense Motive checks, but also assists the language context program to provide appropriate translations.

Many politicians, explorers, merchants, and ambassadors find the diplomat's board useful in delicate interactions with unfamiliar cultures. The device is readily available to those with diplomatic credentials, though others can still obtain it through less direct channels.

Ear dot: Usually integrated into a helmet or visor, these tiny devices are placed near the user's ears. They act as speakers, transmitting audio signals from linked devices that only the wearer can hear. Ear dots are nearly invisible (Spot check DC 30, Search check DC 20). Ear dots are typically linked to inducted transceivers.

IO glasses: These are a more advanced version of standard digital glasses. IO glasses monitor movements of the eyes and send this information to other equipment. Eye movements can be used to control a datapad or other equipment. Operating a device through eye movements imposes a –4 circumstance penalty on related tasks. IO glasses typically have short-range transceiver ports, but versions with other ports are also available.

Nail dot: Nail dots are small, sticky components that are nearly transparent. Regarded as disposable technology, they are applied to the fingernails. After a month or two, nail dots peel off and are simply replaced. Each has a small positioning sensor, determining precisely where they are in relationship to the wearer, each other, and a networked device. The nail dots on one hand tie into one another in a small inducted-transceiver network. This network can then tie into any other inducted transceiver port worn by the character, communicating the hand's position and orientation. Nail dots can be used as a wireless, three-dimensional control interface for datapads and other equipment. A character can manipulate a dataspace, moving files around, typing in commands, or other-

wise interfacing with a device. The character can manipulate data quickly and easily, wearing digital glasses and making easily learned gestures.

Runevisor: The runevisor consists of a metal, rune-inscribed band that covers the eyes. An electronic interface works with the arcane symbols to enhance one's view of the inner workings of spells and technology. Sonic interface earpieces hold the visor in place and augment its vision-enhancing qualities with audio frequency analysis. A dataport allows the user to download data directly from the visor into a computer or datapad programmed to interpret the readings.

To use a runevisor one must have the Technical Proficiency feat and at least 2 ranks is Spellcraft and Knowledge (arcana). It augments the user's vision and hearing to better understand the true nature and interaction of spells and technology. The runevisor provides a +4 circumstance bonus on Disable Device, Knowledge (arcana), Repair, Research, Spellcraft, Use Device, and Use Magic Device checks for tasks relating to the interface of magic and technology.

The visor also obscures one's normal vision and hearing. The wearer suffers a –2 penalty on other vision- and hearing-based skills (Listen, Read Lips, Search, Sense Motive, and Spot), has a –2 penalty to all attack rolls, and loses his Dexterity bonus to Armor Class. Those who regularly use runevisors rest them atop their head and tuck the sonic interfaces behind their ears when not in use.

The technomancers of the Punilac Academy of Arcane Technology craft runevisors according to an ancient manual in their closely guarded library. Academy graduates create their own visors as part of their training—they serve as badges indicating previous study at the school and marks of identification among alumni. The academy faculty bestows visors upon a select few honored guests, notable dignitaries, and a handful of exemplary colleagues outside their institution. Given the academy's ancient existence, some runevisors have inevitably found their way onto the open market. Academy alumni who fall on hard times sometimes sell their runevisors for hard credits. Runevisors sometimes fall into the hands of pirates and thieves who take them from victims and sell them for profit. Elite merchants dealing in machines merged with magic pride themselves on their stock of ill-gotten runevisors.

Skill chips: Skill chips are programs focused on specific skills, designed from the experiences of experts. These chips grant 2 skill ranks in a single skill (as datachips). Skill chips are also available for specific weapons, conferring a +2 circumstance bonus on attack rolls with that type of weapon. Chips focused on Knoweledge skills and other purely mental skills can be accessed via a standard datapad and conventional interface. Skill chips that enhance skills with a physical component must be accessed through a brainport.

Feats and class abilities represent broad talents and experience. Although there have been attempts to capture these with skill chips, it has so far proven impossible to simulate them.

Note that skill chips for physical activities are linked to the body image of the character. A Perform (dancing) skill chip recorded by a dwarf is going to have limited application to an elf, and almost none to a dragon. If the identity match has some problems, the chip provides only 1 rank in the skill. A complete mismatch actually imposes a –2 circumstance penalty on related tasks.

Robots can have skill chips. This is distinct from regular programming that grants skills. Robotic skill chips are effectively temporary programming. Note that only skills the robot is actually permitted to use may be accessed via a skill chip. A robot lacking combat programming cannot take advantage of a weapon skill chip.

Slave: Many devices have integrated microprocessors, such as digital binoculars and security scanners. An ambitious technologist may want to procure equipment without the frills, relying on a network of devices to provide all needed functions. Buying a stripped-down version of a device typically reduces the cost by 20%. Ports must be installed to link the device to a datapad. Software running on a datapad can handle one device intensively, or five devices at a normal load. More than that requires either a larger datapad or cycling the work.

Throat dot: A throat dot is a small transparent microphone. It is sticky and is placed on the skin near the voice box. Its position and sensitivity means that, with practice, a character can subvocalize commands and communications. A person standing within five feet of a subvocalizing character can make a Listen check (DC 35) to overhear the conversation or commands. Throat dots have integrated inducted transceivers and are able to network with other devices worn on the user's person.

COMPUTER GEAR

Item	Cost	Weight
Brainports		
Input	1,000 cr	—
Output	1,000 cr	—
IO	1,750 cr	1/2 lb.
Full	2,500 cr	1 lb.
Dataports		
Physical	0.1 cr	—
Cable	0.1 cr	—
Transceiver	0.3 cr	—
Inducted	0.1 cr	—
Networked	0.2 cr	—
Digital glasses	5 cr	—
Diplomat's board	1,200 cr.	3 lb.
Ear dot	1 cr	—
IO glasses	50 cr	1/2 lb.
Nail dot	0.4 cr	—
Runevisor	5,000 cr.	—
Skill chip		
Standard skill	100 cr	—
Trained only	300 cr	—
Exclusive	500 cr	—
Slave	–150 cr	–1 lb.*
Throat dot	5 cr	—

SOFTWARE

There are more varieties of software in the Empire than could be described in several volumes this size. There are commercial applications designed for business, engineering and design, finances, data processing, entertainment, and countless specialized roles, from target aquisition in military vehicles to banking and securities. The following is a brief discussion of very common programs and those of most interest to adventurers in the **Dragonstar** universe.

Codebreaker: This software is either illegal or restricted to authorized government personnel just about everywhere in the Empire. The program uses complex mathematics to analyze and break codes. The software provides a +4 circumstance bonus on Open Lock and Disable Device checks involving electronic locks, computers, and security systems that rely on alphanumeric passcodes. The program must typically be run on a datapad or other computer device with a wireless modem or dataport capable of linking to the targeted system.

Decryption software: This software is restricted to authorized government personnel. It uses complex mathematical processes to decrypt encoded data. The software grants a +10 circumstance bonus on Cryptography checks to decipher encrypted data.

Encryption software: This is the standard, commercially available software designed to encrypt private data and communications. The program allows even untrained users to automatically encrypt data. The program comes with a variety of decryption keys and simple routines that allow the user to create new ones. Characters with access to a decryption key can automatically decrypt data encoded using that key.

Lifeform database: This program is an extensive database of thousands of species encountered on imperial worlds. The database is by no means comprehensive, focusing on species that are likely to be of interest to professionals in the field, whether explorers, scientists, military personnel, or adventurers. In most cases, the creatures most likely to be of interest to these people are dangerous ones, and potentially threatening or deadly species are by far the most common entries in the database.

SOFTWARE

Item	Cost	Weight
Codebreaker	250 cr	—
Decryption software	1,000 cr	—
Encryption software	100 cr	—
Lifeform database	150 cr	—
Mapping suite	100 cr	—
Personal assistant	50 cr	—
Search bot	50 cr	—
Software library	120 cr	—
Tactical simulation suite	500 cr	—
Trap diagnostic suite	200 cr	—

The lifeform database gives the user a +2 circumstance bonus on Knowledge checks related to identifying and evaluating a wide variety of creatures. While the database is incomplete, it is fully customizable and expandable. Newly discovered creatures can be entered, and the characteristics and capabilities of creatures can be expanded and altered.

There are several sites on the Infonet maintained by adventurers and explorers where expansions and updates to the lifeform database can be downloaded free. While this information is not always reliable, many starfarers prefer unreliable data to no data at all.

Mapping suite: This commercial software suite is used to create maps of all kinds. Responding to simple commands or imported data, it can create both realistic three-dimensional layouts and simple two-dimensional schematics. The program features a number of submenus and callouts that allow the user to integrate personal notes and revisions. Files from this program can be linked or uploaded to a digital mapbox.

Personal assistant: This software is a lifelike personality that acts as an agent. It can handle messages, perform complex commands, and otherwise manage a data system for a character. This software is much simpler than robotic personality modules. There is little chance of someone mistaking this assistant for an actual person, though the graphics can look realistic. There are many different personalities available. The most common design in the business world is that of a sharp eyed, conservatively dressed young woman.

Search bot: Datapads are usually sold with a wide variety of factory-installed software, including programs designed to search local networks and the Infonet. A search bot is a much more sophisticated software agent. It has a Research skill bonus of +10 and can run autonomous searches for data on a wide variety of networks. The search bot's ability to locate and retrieve data is somewhat dependent on the information and parameters set for the search. A character with 5 or more ranks in Research or Use Device grants the agent a +2 circumstance bonus on its Research checks made while executing the search.

Software library: This is a collection of code objects and libraries, along with useful program interfaces, that can be used to quickly program new software. The basic modules are easily accessed and can be quickly assembled for a variety of tasks and applications. The character must have an understanding of programming and computer systems to use this software effectively. A software library grants a +10 circumstance bonus on Use Device checks to create new programs.

Tactical simulation suite: This military-grade software can be invaluable when sufficient information about the enemy is known and there is enough time to use that information to prepare a plan of attack. Use of this software typically requires advance reconaissance of the enemy and their location. At a practical minimum, a character must know his enemy's race or species, approximate numbers to within 20%, and the general characteristics of the terrain on which the battle will be fought. This data can be gathered from previous contact with the enemy, scouts, magic, or recon robots and drones.

This information is fed into a datapad or other computer, and the program breaks the information down and analyzes it, running simulations of various attack plans until it chooses an optimal course of action. At any time during the simulation, the user can input

new data or change parameters to provide intelligent guidance for the system. Assuming minimal requirements are met, the program grants a +2 initiative bonus and a +1 circumstance bonus on attack rolls and saving throws for the duration of the simulated encounter.

Trap diagnostic suite: This program must be run on or linked to a device with imaging capabilities. When a character—usually a rogue—discovers a trap or security system, this program evaluates digital footage of the hazard, analyzes it, and presents a customizable sequence of tips and guidelines to assist the character in disarming it. The program grants a +2 circumstance bonus on Disable Device checks to bypass or disarm traps and security systems. The program does not function if digital images of the trigger or trap mechanism cannot be secured and downloaded to the datapad.

Expanded Computer Rules

The *Starfarer's Handbook* presents basic rules for operating and hacking computer systems (see page 84). The following section provides a more detailed discussion of computer systems and security.

Computer Basics

A standard computer system, such as a datapad, has enough storage capacity for 10 normal programs. Some programs (such as skill chips) may require additional space. One program can be run at *full load* on a datapad. Multiple programs can be *threaded*, and it is even possible to run all stored programs at once, though this seriously affects performance.

Most information software takes up significant processing due to the front end or user interface. This front end rapidly interprets what the character is doing and requesting, trying to apply context to a query or command.

For example, a character working on a vehicle may want to figure out what is wrong with the fuel intake. The datapad interprets and responds to the user's queries and commands, analyzing the problem and searching for solutions. The datapad may search for additional information, either on the vehicle's repair history or from network resources. After compiling this information, the datapad organizes it and presents it to the mechanic. The datapad may run tutorials or display detailed schematics.

In short, most routine uses of a datapad are fairly complex, and they generally require the processor's full attention. Background functions, however, can be run in parallel. Most communications, even full-stream video, routine networking, and basic functions such as onboard timekeeping can all be handled by a datapad while running another program at full load.

For some tasks, it's important to run multiple programs at the same time. Some programs are even designed to work together, sharing information or dividing complex tasks into specialized components. Datapads can coordinate the tasks of different programs and enhance their function. For example, Heal and Knowledge (biology) databases may assist in treating an injury. If a character can run both at the same time, he gains the +2 circumstance bonus from both on related checks.

Software

Software can be categorized as an agent, application, or operational program. The latter are typically invisible to the user, and they are responsible for handling communications between devices, running or expanding the basic system, and system security.

Applications are the standard software programs used for a variety of tasks and can be stored on a datachip or on the datapad or computer. Combining large

amounts of data with advanced front ends and processing, applications are often very powerful tools. A typical application can be copied from a datachip to a datapad in seconds or minutes, depending on the size of the program. Transfers across a network are usually much slower.

Agents are not as elaborate as applications. They perform specific functions and tasks. A task can usually be condensed to a simple sentence or command, such as "monitor communications through this port" or "record each access of this file." Agents are often related to and integrated with operational programs.

A character can create an agent using the standard rules for programming (see the *Starfarer's Handbook*, page 84). Active agents, those designed to perform difficult tasks of their own, must be given a Use Device skill bonus. The desired skill bonus is added to the DC of the check to create the program (maximum +20). For example, the DC to create a moderately complex agent with Use Device +10 would be 30.

When a prewritten agent is loaded onto an unfamiliar system, the programmer's Use Device check is made after five minutes of additional programming. This programming is necessary to tweak the agent to function properly on the system. If the computer turns out to be very different than expected, the character may be forced to assemble a new program. An agent on a well-known system or isolated from the system can be installed with no delay.

Agents and operational programs perform tasks. A task is ultimately defined by processing, observing, or transferring data. Agents, due to their more limited scope, can perform one to 10 tasks, while operational programs may perform hundreds. A mildly complex agent may be responsible for observing incoming communications traffic, filtering it for voice stress, and sending an alert if certain criteria are met. Another agent may be linked to a camera on a door lock and programmed to look for an image match (through an application, perhaps) and trigger a lock mechanism in response.

If an agent has to interact or perform skill checks, its skill bonus is treated as +0, unless the programmer has designed it as an active agent.

Agents take up minimal space. Twenty incredibly complex agents can be stored on a datachip, and 200 such agents fill the memory of a normal datapad. Note that this includes additional files related to the agent's function. Agents can be purchased on a datachip or downloaded from a network site for 10 cr per task they can perform. Some agents, particularly those that enhance datapad functionality, may be cheaper or free.

Illegal agents, particularly active agents designed to help hackers infiltrate or sabotage other computers or networks, are two or three times as expensive.

Sample Agents

Censor: Moderately complex. This agent filters communications, runs it through a series of context and image-processing routines to block criminal messages, and also stores suspect messages for later perusal. It works automatically against obvious messages, but messages encoded using the Innuendo skill require an opposed check. The agent has a +0 skill bonus for the purposes of this task.

Port tap: Simple. This agent is linked to a port. It copies traffic activity information through the port to a secure file.

Security mole: Mildly complex. This agent oversees a file system and searches for inquiries on file history. If it spots any, it interrupts and sends the inquirer false information. Such an agent won't fool a serious probe. It may buy time, perhaps until more serious system security takes over.

Tar pit: Incredibly complex. This agent waits for a user to investigate designated files. Once probed, it expands and invades the user's interface and begins corrupting data. The more commands the user inputs, the worse the corruption becomes.

A character trying to bypass the agent must make an opposed Use Device check against the agent. If the hacker is using an active agent rather than trying to bypass the security directly, the agent must make the Use Device check using its own skill bonus. Success means the character realizes what the tar pit is and can take steps to erase or avoid triggering the agent. A failure means that every action taken by the character corrupts the user account and interface. Each action the user takes increases the difficulty of further Use Device checks by +1. Soon, the account is completely compromised, and the investigator will only see what the tar pit wants him to see.

COMPUTER HACKING

There are four steps to computer intrusion: contact, access, handling, and withdrawal. These are influenced by how the system is set up. Contact and access may be via a network, tapping a connection, or direct.

COMPUTER SECURITY

Security Level	DC
Simple security	15
Good security	20
Excellent security	25
Incredible security	30
Extreme security	40

Contact

Network: A network is any number of computers linked to one another through a communications system of some kind. Some machines are dedicated switching and routing systems, responsible for handling where information should be directed. There are a variety of ways networks can be organized, depending on need. Ultimately, the need for computers to communicate creates vulnerability to intrusion.

Systems connected to a global network can be contacted from nearly anywhere. Most reasonably secure systems restrict access to local networks, but in many cases there is often one machine or a gateway system (a firewall) that provides access to the larger network.

The first problem is actually finding the machine. If the location is fairly well known or advertised, there is little trouble. Otherwise, it requires a Research or Gather Information check. The actual DC depends on the nature of the system and the level of security. Public systems may be very easy to find (DC 5 or less), while secret and secure systems are almost impossible (DC 30+).

Once the gateway has been found, the hacker can attempt contact. If the machine is directly accessible from the network, contact is automatic. Otherwise, a firewall must be negotiated and hacked.

Note that actually sitting at a computer and hooking up a datapad to an access port (or connecting two datapads) is fundamentally the same as a network contact. Some access ports rely on restricted access and have minimal security themselves. This is common in research or other secure installations. While outside access must pass through restrictive firewalls, internal access is usually much easier so staff can work more efficiently. In these cases, internal network security may be very basic, and the issue becomes one of physical infiltration. Ultimately, people provide the best opportunities for intrusion.

The biggest limitation of network infiltrations is that activity on a network always leaves a trail. This exposes the hacker to the risk of being tracked back to a known account.

Tapping: Tapping a connection bypasses an official network. Whether by cable or transmission, the hacker hijacks the signal and gains access to the system. This allows the character to avoid detection through other machines.

There are varying means to tap a device. The simplest is physical, using a *guillotine tap*. Designed for a variety of cable types, the device cuts in and reroutes the signal. It requires a Use Device check (DC based on security level) to successfully apply the tap and avoid triggering alarms or security measures. A tap attempt on a complex system supporting many input and output cables must fail by 10 or more to trigger any alarms or countermeasures. Any failed roll triggers alarms on a system supporting only a few cables. If the system is served by a single dedicated line, the check must succeed by 10 or more to avoid triggering an alarm.

Another method of tapping a system is an *inductance matrix*. This is the best method when the connections in and out of the machine are inaccessible but the machine itself can be approached. The device is placed against the body of the machine. It uses EM coupling to hop onto the system. A Use Device check (DC based on security level) is necessary to access the system across the inductance matrix. A failure by 10 or more provokes an alert.

Communications relying on radio signals, whether long or short range, can be intercepted with a *transceiver tap*. The character must first identify and locate the signal and must be within line of sight of the target port. A Use Device check (DC based on security level) is necessary for a successful tap. Failing by 10 or more provokes an alert. This technology does not work on inductance ports or networked transceivers, but it can access a datapad through a conventional wireless modem.

A *remote inductance matrix* provides a potent long-range solution. Using a field projector, it is able to tap a system remotely through any appropriate ports. The matrix works as long as the system is connected to a non-physical port. The Use Device check is made (DC based on security level +5) and a failure by 5 or more provokes an alert. This system works on all ports except physical ones, though its range is limited to line of sight or 30 feet.

Direct intrusion: The direct method of computer intrusion involves accessing a machine through a legitimate account, either directly or remotely. One must first gain access to a legitimate account on the

system, though the account could be stolen or compromised. Accessing machines this way is typically a matter of infiltration. The degree of access determines subsequent activity. If the character has full control of a machine, no access check is needed. Otherwise, the DC is 15 for standard access and 25 for a use-limited account. It is hard to get around the limitations of an account, but sloppy security leaves holes that can be exploited.

Access

Once contact is established, the character has access to the system. While alerts may seem dangerous, many systems are routinely subjected to network attacks. There are stiff fines for attempting to intrude into a system, but it isn't worth the attention of law enforcement to track every infraction

Rampant "spoofing" is a nuisance that can result in seizure of property and incarceration. A spoofer is someone guilty of using jamming technology or launching hundreds to thousands of attacks a day. There are also some spoofers that use illicit means to bypass controls on large numbers of systems. Public spoofers target the population at large, using various methods to either gather information or tamper with computers throughout a network.

Successful access affords a character almost complete control of a system. Files and programs can be accessed completely. Some changes, particularly those related to security, require further checks.

If the success of contact was by 10 or more, the character has a great deal of control and gains a +2 circumstance bonus on all subsequent checks during the intrusion.

Handling

Once he has access to a system, a hacker can manipulate or transfer data. For example, if a system hosts a database containing images or maps, the hacker could access the maps, alter them, and then copy them back. Many manipulations can be done remotely unless the system is particularly limited. Extensive manipulations are often best if the character performs them on her own computer. The hacker can usually procure better software for these tasks than are available on the hacked system itself.

Normal usage of a system is fairly quick. Files can be transferred at nearly instantaneous speeds, with appreciable slowness only on the largest or oldest networks. Hacks, however, require time.

When accessing a system, a hacker makes an initial Use Device check (DC base on security level). For each point by which the character fails the check, further hack attempts take a full minute.

Some systems may have periodic security checks, monitors, or other users working on the system. The character (or his active agent) must make an opposed Use Device check against these users. If successful, these observers don't notice anything while the character is in the system. If the hacker fails by 5 or more, he doesn't even realize the observers are there. A successful check does not deactivate normal security alerts; it only allows the hacker to avoid the notice of other users.

Hackers may disable or bypass a system's security. This can only be done if there are no other users or monitors on the system. A Use Device check (DC equal to security level +10) is required to disable security. If the check is successful, no further activities will raise an alarm.

A character may erase records of her intrusion on a system (or through a system, in the case of firewalls and routers). This is a normal Use Device check that is opposed by any observer or user examining the system later. Many hacker create active agents, called cleaners, that do this automatically, "following" the hacker around in the system and covering his tracks as he works. An observer who succeeds at this check gains the details of the system access and what was done in the system. An analyst may note that certain files were altered or moved but may have difficulty identifying the changes made.

A system hack can allow the hacker to open a security hole. This creates a legitimate identity for access later. A Use Device check (DC based on security level +5) is needed to create and integrate the false account and to hide it from further scrutiny. This task is separate from a general cleanup. A hacker could create an account and hide it, but leave other records of activity present. Analysts later might assume that the obvious signs of activity represent the hacker's only work on the system.

The hacker may also install monitoring agents. The agent's Use Device check is opposed by anyone investigating the system later. The software records and, if instructed, transmits information to a designated system. The activity of other users is often the target of these monitors, but they can also record file transfers or changes. If the monitor stores large amounts of information or transfers data, attempts to notice it gain a +2 circumstance bonus. A monitor that does both grants observers a +4 circumstance bonus.

On any handling check, a hacker may opt to set the check result lower. This is often done to create a poorly covered yet convincing security breach to

LARGE COMPUTER SYSTEMS

System Rating	Population	System Capacity	Minimum Security	Cost	Size
1	1	50	Simple	300 cr	1 lb.
2	5	100	Simple	480 cr	2 lb.
3	10	500	Simple	2,400 cr	10 lb.
4	100	5,000	Good	19,200 cr	100 lb.
5	1,000	50,000	Good	153,600 cr	1,000 lb.
6	10,000	500,000	Excellent	1,228,800 cr	10,000 lb.
7	100,000+	5,000,000+	Incredible	9,830,400+ cr	100,000+ lb.

draw attention away from a hacker's real work. A security analyst may even ignore a badly botched intrusion, as it is obviously the work of an amateur who poses no real threat to the system. Some hackers even create active agents called thrashers whose sole purpose is leaving a false—and usually destructive—trail through a targeted system.

Withdrawal

Disconnecting from a system is not always straightforward. Without any special effort, an intruder leaves behind traces. These records can be cleaned up, as described under handling.

However, over time, it becomes more and more difficult to hide one's presence on a system. For each hour of connect time, all the character's check results suffer a –1 penalty. This includes changes that have already been implemented, like security holes and cleanup efforts. It does not apply to active agents, which can operate in a system autonomously regardless of the status of the hacker's connection to the system.

Taps may also need to be removed carefully. If in a physically secure location, the character also needs to remove herself from the area.

IMMERSION

A character normally operates datapads rather simply, with voice commands, gestures, and similar interface tools. With more advanced peripherals, the character can sit and immerse herself in her work. This is particularly useful in intrusion, where time and concentration are important.

Simple immersive devices include dataglasses used with nail dots, allowing relatively hands-free interfacing. The character gains a +1 circumstance bonus on all Use Device checks during the intrusion. A standard IO brainport provides a +2 bonus, while a full brainport provides a +4 bonus.

LARGER SYSTEMS

There are many computer systems far more sophisticated than the common datapads many characters have. Larger systems are usually rated in terms of how many people are expected to use them. The rating is the log value of the estimated population. A rating of 1 is a normal datapad, suitable for one user running continuously. Typically, civic systems accessed by citizens are about one rating less than indicated for their size. Average usage is only about 10% of population value. High usage systems, like research labs, may have systems a step higher in load. These systems tend to run massive programs even when no users are around.

Only large cities and developed planets have single dedicated systems. Even then, distributed networks are much more common than individual, massive machines. Large systems are more common on space ships, stations, and bases. Ships typically have computer systems equal to their crew complement. Military or other specialized vessels are usually a step more complex. Military ships have a minimum security of 1 greater than the normal minimum.

DATAPAD SECURITY

All datapads are required to be registered with the Empire. A small ID chip in a tamper seal provides identification information whenever a datapad communicates over a network. These chips can be removed with a simple Repair check (DC 10), or spoofed with a complex Repair check (DC 25). A dat-

apad without a functioning chip (whether legit or spoofed) is denied access to any other registered datapad or network. Possessing a spoofed datapad usually results in stiff fines and possible incarceration.

There are areas, of course, where security is not so tight. On worlds where the Empire's presence is limited, isolated outposts, or in unpopulated districts on imperial planets, free networks are more common. This freedom has advantages and disadvantages, since it is hard to keep systems secure from others.

It is certainly possible to steal a datapad. The imperial registration database, usually a system local to each world, lists official owners of datapads. A datapad used in a crime does not mean law enforcement will assume the owner is guilty. The owner will certainly be interrogated, however.

The imperial registration database on a given planet typically has extreme security for the firewall and the system itself. Watchdog analysts and agents are common. If the system is hacked, a character may alter personal information and then cover up the access. Note that tampering with core imperial systems is often punishable by death in the Red Age. The Empire does not take kindly to actions that could easily disrupt an entire global network.

A somewhat safer and easier method is to bribe an official responsible for the database. If caught, the punishment is rarely more than a stiff fine and incarceration, and usually no more than a fine.

Once a false identity is established, the character has added protection if further intrusions fail. A failure, however, is likely to get the attention of security teams. If the systems the character went through remain online, the teams can still track the character. A character can deactivate or destroy the datapad that is used with the false identity, assuming the character knows she is being tracked.

ROUTERS

Routers are systems that handle communications between other systems. They have wireless systems and hardwire systems, allowing anyone within 10 miles to access larger networks. Some routers do not have this range and are meant only to coordinate traffic.

Firewalls are routers set up to gate from a subnetwork (say, the computers in a military installation) to larger networks. Firewalls often have the tightest security, allowing the systems they protect to operate with much lower security. Like datapads, routers must have imperial registrations.

Routing systems in the Empire generally have incredible security. On marginal worlds, isolated outposts, or in less secure areas of a network, the routers may have any degree of security. Router security varies throughout a world, as well. Routers in the badlands of a planet may have minimal security, but access from these areas is often scrutinized carefully. Access from some routers may be refused entirely, such as a region known for illicit traffic and minimal security.

It is possible to compromise a router so that it sends its own identification as the origin of contact, rather than the actual user. This effectively increases the security DC of protected systems by 5, since such access is somewhat suspicious.

MEDICAL GEAR

Bioread sensor: A few inches long and half an inch wide, a bioread sensor is a useful tool for medicine and law enforcement. These sensors use low-intensity lasers and a variety of imaging technologies to analyze a subject. Pulse, thermal patterns, and shifts in bioelectric fields provide clues that are interpreted by the device. It also records images and sound. At least a quarter of the subject's skin must be exposed for the biometric technology to work properly. This sensor is not as powerful as a behavior analyzer, but it has the ability to operate covertly at range. The lasers are visible to ultraviolet sensors.

A bioread sensor's data is normally piped to a datapad running a medical diagnostic program. The measurements may also be stored for later analysis.

DeTox probe: This small device can be used alone or with a standard medkit. It incorporates an onboard computer with a large database of toxins and poisons. When pressed against the skin, it taps blood vessels and performs a rapid analysis, then injects tailored drugs and nanites. This injection provides a +4 circumstance bonus on Fortitude saves against poisons and radiation. This bonus applies only to saving throws against whatever poisons were in the body when the character was treated, and the protection lasts for 24 hours. Furthermore, toxins and radiation effects that linger in the body are flushed out, as chelating agents and binding nanites suffuse the patient's system.

This device also removes or neutralizes drugs (whether helpful or harmful) unless programmed not to. It will prompt the user when uncertain, particularly with possible medicines. Like a medkit, it is good for five uses, though replenishing the device only costs 100 cr.

Freeze suit: When all seems lost, this device pro-

MEDICAL GEAR

Item	Cost	Weight
Bioread sensor	1,000 cr	—
DeTox treatment	250 cr	1/2 lb.
Freeze suit	1,000 cr	10 lb.
MedStasis generator	2,000 cr	10 lb.
Prosthesis		
Arm	800 cr	10 lb.
Forearm	400 cr	4 lb.
Hand	250 cr	1 lb.
Leg	1,000 cr	15 lb.
Foot	300 cr	1 lb.
Sonic mediscanner	400 cr	1 lb.
Synth matrix system		
Flesh	30 cr	1 lb.
Organ		
Eye	75 cr	1/2 lb.
Liver	50 cr	2 lb.
Ear	50 cr	1/2 lb.
Limb		
Full	400 cr	10 lb.
Forearm	200 cr	4 lb.
Hand	125 cr	1 lb.
Toe	50 cr	—

DRUG APPLICATORS

Item	Cost	Delivery Type	Weight
Hypospray	50 cr	Injection	1/2 lb.
MedKit	10 cr	Injection	—
Drug implant	100 cr	Injection	—
Inhaler	20 cr	Inhalation	1/2 lb.
Dermpatch	10 cr	Injection, contact	—

vides some hope. A freeze suit looks much like a body bag with a large blue symbol to designate its purpose. The suit is similar to a MedStasis generator. The user steps into the bag and seals the front. A gas fills the bag, followed by a fluid. Shortly after the bag is sealed, the character loses consciousness; minutes later, the character dies.

The system immediately begins binding with the character's cells. The walls of the bag inflate and harden into tough, protective foam. An emergency beacon is included in the package, programmed before stepping into the bag (the default setting is to start signaling when the bag is activated).

When the bag is activated, the subject must make a Fortitude saving throw. The result determines her longevity. She may make a Heal check instead if she is able to administer the included preparatory drugs and procedures before starting the freeze. The Heal skill check can also be made by another character. In this case, the result of the Heal check substitutes for the Fort save to determine longevity.

The result is lowered by one for every 10% of the character's total hit points she has lost. Any ability score loss also subtracts directly from the result. Injuries or ability score loss that occurs after the initial freezing will adjust the result downward as well.

The character can be revived within a number of days equal to the save or check result. For example, if a character scored a result of 18 on the Fort save when the bag was activated, she could be revived at

any time before 18 days have passed. Once the period based on the result passes, the character's spirit departs and she cannot be revived. Reviving a character in a freeze suit requires a Heal check with a DC equal to the number of hours that have passed since the suit was activated. The reviving character can take 10 on this check, if the situation permits, but cannot take 20.

An activated suit has a hardness of 10 and 30 hit points. It can be cut through carefully and peeled away with no ill effects. Suits are one use only and are inert after activation. After the suspension process is complete, the suit serves to identify and to protect the body from exposure or casual damage.

Freeze suits can be used as a "passage of desperation" aboard starships. A character may buy a suit and use it, paying only 10 cr a day for passage on most vessels. Captains will take responsibility for picking up the suited character and delivering her to an appointed destination. The actual freezing and reviving is arranged separately.

Many in the Empire are desperate for any chance for a better life. Personnel-starved colonies are equally desperate for cheap colonists. Some companies take advantage of this circumstance, arranging cheap freeze passage. Many charge both those arranging passage and the colonial governments. The fact that a certain percentage of these colonists do not survive the trip is a risk the companies are willing to take.

MedStasis generator: There are situations in which poison or injuries cannot be dealt with right away. In these cases, it may be useful to put a character in stasis. The subject can then be treated later under more favorable conditions. A MedStasis generator is a small box attached to a folded-up stasis web. The web, a thick fuzzy material, must be wrapped around the subject before the generator can be activated. It takes one person 2d4 rounds to secure the subject. Additional personnel can speed this process up (reduce the required time by one round per additional person).

Once activated, the web expands, tightening around the subject and forming a protective cocoon (hardness 10, 40 hit points). A standard generator can be applied to characters of Large size or smaller. Larger versions are rare. The stasis web can only handle one person at a time.

A subject in stasis ages at 1/100th the normal rate. The web provides the minimal oxygen and energy needed for the character to survive. If the character was dying when the unit was activated, the condition is stabilized automatically. Any saving throws to resist poison, disease, or other conditions gain a +4 circumstance bonus. Magical effects are unaffected unless directly tied to biological processes.

Unfortunately, stasis is not healthy. A daily Fortitude save (DC 10 + 1 for each day spent in stasis) is made once the character is out of stasis. This save must be made once per day for a period equal to the duration of stasis. A failed save indicates that the DCs of any Heal checks made on the character that day are increased by 5. The same increase applies to poison or disease saves. In addition, the character is treated as fatigued. If the character has no injuries or other illnesses, two consecutive Fortitude saves negate the lingering effects of stasis. The *lesser restoration* spell also removes the effect.

Under emergency situations, a Use Device check (DC 5) is required to apply a stasis web. Otherwise, the task is automatically successful. A character may apply the stasis generator to herself, though the DC increases to 10.

MediStasis requires a minicell for 60 days of operation. A heavy cell or a connection to a vehicle power supply can extend operational limits indefinitely.

Prosthesis: Prosthetics in the Empire are far more advanced than simple wooden legs and mechanical arms. Technology allows living beings to replace or extend their capabilities. Imperial society typically frowns upon voluntary prosthetics, and those with many obvious replacements are often treated like soulmechs.

Replacement of parts with equivalents costs twice as much as the synth matrix treatment. This type of prosthetic is common. Most replacements attract little notice, but artificial eyes brand the character as suspicious or abnormal.

Sonic mediscanner: This device uses sound waves to map a patient's body. It can be installed into an autodoc or used as a handheld instrument. Though often networked to other systems, when used alone the scanner has a display and software to interpret and display results.

A sonic mediscanner provides a +2 circumstance bonus on Heal checks. When combined with a diagnostic monitor or other devices providing a circumstance bonus, the bonus for the sonic mediscanner stacks. However, a complete sweep with the mediscanner requires a full-round action, in addition to the time needed to use other medical devices and supplies.

Synth matrix system: There are some medical conditions that lie far beyond the abilities of normal healing and medicine. Acid or flame can cause permanent injuries, and explosives can destroy or remove limbs. Common medical procedure is to apply a matrix of synthetic flesh, which guides a regenerative process. Once the flesh is replaced and

strengthened, the synthetic flesh peels off.

The only problem with such treatments is that large-scale damage still leaves a character handicapped and often bedridden during the lengthy process. The synth matrix system allows a character to use an artificial replacement that simultaneously stimulates healing and replaces function. In each case, the effects of the damage are halved while healing is underway. It takes time to generate a synth system, but common replacements are stocked ahead of time. Synth matrix can be adapted to most races. Cost is the same for smaller or larger organisms. Truly unusual races (like half celestials or intelligent plants) require special orders, which may cost as much as 10 times normal.

Applying synth matrix to treat temporary ability score loss requires a Heal skill check (DC 10 + ability points lost). Ability score loss returns at double normal rate. Normally, characters do not bother with synth matrix for internal damage, as it is typically easier to simply wait out a few days in a hospital. Still, sometimes a character needs to be patched up quickly.

With permanent ability score loss, missing limbs, or damaged organs, the DC for the Heal check is 20 + ability points lost. An entire missing arm or leg is considered DC 30. Only one roll is allowed for a given condition. If recovery is impossible, characters are likely to opt for prosthetics instead. This procedure allows normally permanent damage to return at one point per month.

SynthFlesh matrix is useful for acid, burns, and other surface damage. Charisma damage due to such effects is halved while the ability points are recovered. It takes an hour to generate synthflesh for most uses, and two hours for a full-body skin graft. Applying synthflesh takes about five minutes.

SynthOrgan matrix is used for blindness, deafness, lungs damaged by inhalation of fumes, or other organ failure. Effects and penalties are halved while the damage is healed. The same applies to loss of Constitution or other factors due to the effects of toxins and disease. It takes eight hours to generate a replacement organ. The operation takes one to two hours.

SynthLimb matrix replaces hands, arms, and legs. It typically takes five to 10 months for the healing to be completed. A single missing leg might reduce a character's speed to 1/4 normal with a crutch. With a synthlimb replacement, speed is 3/4 normal and running is possible. Two replaced legs would halve the patient's speed, but running is still possible. Arm or hand replacements suffer a –2 penalty on attack rolls and Strength- or Dexterity-based checks until the limb is healed fully.

Note that a patient must pay the full price, even if an operation fails. Some health providers may charge a higher price for the operation but offer a discount if the operation fails. Synthflesh is often cheaper than a *regeneration* spell and is especially useful when divine magic is unavailable.

Hypospray: This is a simple tool that delivers medicine into the patient's bloodstream without puncturing the skin. The device uses chemicals and electricity to numb a patch of skin and increase its permeability. It can be set to deliver a drug into surface tissue or to find a blood vessel. Standard medkits come with this device. It can also be purchased separately and is popular with those interested in recreational drug use. Using a hypospray is a move-equivalent action. The medkit version is disposable and must be replaced after 3d4 injections.

Drug implant: This device is surgically inserted into a patient. It has a small, almost unnoticeable port for refills (Search DC 30). It can be programmed or monitored by a separate device. Drugs are administered in response to physiological conditions (the beginning of combat marked by increased adrenaline levels, loss of a certain number of hit points, etc.) or according to a time schedule. The implant reservoir can hold up to six standard drug doses. Each dose can be a different drug and handled with separate parameters. The device is about an inch in diameter, most of which is accounted for by the drug reservoir. The components of the implant itself are highly miniaturized.

It is also possible to put poisons or infectious material into a drug reservoir, making an impromptu "biobomb." With appropriate triggers, it could be resistant to tampering and activated either after a set amount of time or in response to a signal.

Such devices are common for both medicinal and recreational use. Some military personnel use implants for boosters.

Inhaler: This is a simple device that delivers inhaled drugs. An inhaler can be built into a helmet or other equipment. The internal reservoir is designed to prevent residue buildup and can hold up to 100 doses. Disposable inhalers, capable of holding 50 doses of a drug, are available for 1 credit. Using an inhaler is a move-equivalent action.

Dermpatch: This is a simple fabric and gel matrix that can be adhered to the skin. It has no electronics, relying on chemicals and designed polymers to produce the desired effect. It can meter out drugs constantly or at fixed intervals and can react to basic physical conditions. Gross physical injury can be detected through chemical changes in the skin. A

patch can hold up to 10 doses of a drug and may contain a mixture of drugs with different delivery requirements. Activating a patch that is already on the character is a free action. Placing a dermpatch requires a move-equivalent action.

Drugs

There are literally millions of drugs available in the Dragon Empire. A select few that are of particular interest to adventurers are decribed here. Ability score modifiers produced by drugs stack with all bonus and penalty categories, including those produced by different drugs.

Addiction

Many drugs are addictive, with different addiction ratings and effects. Each time a character takes one dose of a drug, the player must make a Fort save with a DC equal to the drug's addiction rating. A failure indicates that the character's addiction to that drug increases by 1. A character's addiction to each drug he uses can be marked alongside the drug entry on the character sheet. For every five points of addiction, the character is subject to a different addiction effect. The first effect begins with the first point of addiction, and the second is applied when the character gains six points of addiction.

Addiction ratings are specific to individual drugs or several closely related drugs. Addiction to one drug does not normally mean the character is susceptible to other drugs. Though addiction has a psychological component, the focus in these rules is on physical addiction. Physical effects may include behavorial changes, however.

Drugs have a withdrawal period and withdrawal effects (or symptoms). The period determines how long the character can go without the drug before withdrawal symptoms occur. Withdrawal allows a Fortitude save against a DC equal to the drug's addiction rating. The character suffers a circumstance penalty on the save equal to his accumulated total of addiction points. The effects shift depending on success or failure. If a character takes a drug before the withdrawal period ends, the clock is reset. Taking the drug after withdrawal starts usually mutes the withdrawal symptoms.

Addiction drops by one every time the character goes without the drug for an entire withdrawal peri-

MEDICAL DRUGS

Drug	Addiction	Cost (per dose)	Delivery Method
Bone coral	—	50 cr	Injected
Bone coral (full)	—	5,000 cr	Injected
Counteragent	—	50 cr	Injected, ingested
Healing booster	—	50 cr	Injected
Stabilizer	—	10 cr	Injected
Stim	20	5 cr	Contact, inhaled, ingested

od. Drugs may have a minimum addiction value. At this value, any further cure for an addiction requires medical assistance. Many basic drugs do not have a minimum addiction value.

Some drugs have an effect listed as "acquire." This means the character must make a Will save (against the normal addiction DC) or be compelled to take the drug again.

Medical addiction therapy requires one month and a Heal check (DC 20 + addiction rating +10 if subject is unwilling) by the attending physician. An addiction rating greater than the minimum value is reduced to that minimum value, if the treatment is successful. If the addiction rating is at or below the minimum value, a success drops the addiction rating by 1.

Medical Drugs

Bone coral: This drug consists of a colonial organism that is fed into the bloodstream. It attaches to the bones and is only active under certain conditions.

The skeleton of living beings is a constantly changing, adapting structure. It reacts to physical force by strengthening along the lines of stress. When a living organism is in freefall, the bones tend to loose calcium and strength. The effect can cause permanent ability score loss of Constitution and Strength over prolonged periods of time. Strength can be maintained through exercise, but it is hard to effectively prevent bone deterioration.

Bone coral forms a matrix around the bones, preserving a chemically encoded "memory" of the healthy skeleton. When bone deterioration begins, the coral counteracts it and maintains skeletal integrity. One slight drawback is that the metabolism of the coral requires the character to eat more food. Also, the increase in wastes can cause stress on the kidneys.

A single bone coral dose lasts one month. There is also a permanent therapy that costs one hundred times as much. The permanent therapy requires a hospital and a successful Heal check (DC 25). Most characters raised in freefall receive this treatment during childhood. A character starting with the Born Spacer, Low-G Tolerance, or Zero-G Tolerance feats may pay 50 cr for the full treatment during character creation.

Dwarves, though they suffer less from the effects of prolonged weightlessness, still find treatments like this useful. Dragons give the impression that they are too powerful to need such petty treatments. Dragons that spend a lot of time in freefall, however, resort to special bone coral adapted to their physiology.

There are magical ways to recover from the effects of weightlessness. In the long run, this method is cheaper and easier.

Counteragent: This is an advanced drug, consisting of synthetic viral constructs. Designed not to provoke a reaction in the body, the drug monitors the bloodstream for a wide variety of substances. Each counteragent works against most known toxins, poisons, and diseases, including the effects of radiation. When the counteragent detects any of these, it adapts and provides protection.

A counteragent, once it has adapted, is only effective against that one substance. If a character is subjected to radiation exposure and a possible infection, the counteragent will target only one (the one with the most deadly effects). The protection is maintained against repeated exposures to the same substance. The counteragent cannot change its adaptation to a new threat. Several doses can be taken, however. These doses will cooperate and specifically tackle separate threats.

Counteragents provide a +4 circumstance bonus on saving throws to resist the effects of poisons, toxins, or radiation. A single dose circulates for up to a month in the bloodstream. Once it has adapted, it is good for five saves. It is standard issue for many military medkits, particularly those in jungles or facing enemies known to use poisons.

Note that counteragents will not protect against the

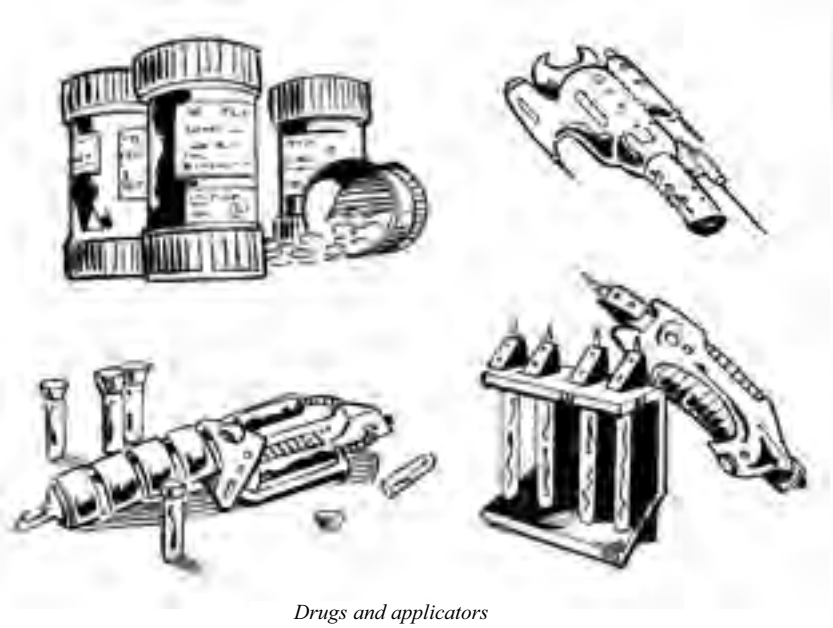
effects of saves failed before the counteragent was injected.

Healing booster: One dose of this injected drug increases a character's natural healing rate by 1 hit point per character level per day. For example, a 3rd-level fighter who uses a healing booster would recover 6 hit points per day of rest. This modifier is applied after any benefits from long-term care.

Stabilizer: When injected into the bloodstream, this drug automatically stabilizes a dying character. The drug is often used in a patch or reservoir. These systems administer the drug immediately when a character is reduced to less than 0 hp.

Stim: This is a common drug used to counter the effects of fatigue and exhaustion. A dose sends a quick rush through the system. Unlike many other drugs, it can be inhaled, ingested, or applied to the skin with similar effects. Unconscious characters wake up, fatigued characters are refreshed, and exhausted characters' status is upgraded to fatigued. It may have benefits with other conditions, as well. Though intended for medical purposes, it sees wide use as a recreational drug.

Stim is an addictive drug (DC 20). Each level of addiction results in the loss of one point of Constitution or Wisdom, alternating with each level of addiction. There is no addiction floor. The withdrawal period is 24 hours, and the character becomes exhausted if the save is failed or fatigued if the save is made successfully. In addition, if he rolls a 1 on the saving throw to resist addiction, the character must make a second saving throw at the same DC. If this save is failed, the character immediately drops to –1 hit points and is dying from heart failure.



Drugs and applicators

Purpose/Recreational Drugs

Dedication: While there have been some calls for outlawing this drug, it is considered too useful to ban. Dedication clears the mind of distraction, aiding in a variety of mental tasks. It is, however, highly addictive (DC 18).

The drawback of the drug is that the focus it provides often comes at the expense of creativity and an appreciation of subtlety. The effects depend on how long the character has been using the drug. There are also withdrawal symptoms of varying severity. Dedication is usually taken as a single daily pill, but there are liquid forms for implants.

This drug is used continuously, once per month. The effect levels are applied to the user at one month, 2d6 months, 1d4 years, and 1d6+4 years. The drug effects are +1 Int, –1 Cha for the first period of use; +2 Int, –3 Cha for the second period; +3 Int, –6 Cha for the third period; and +4 Int, –12 Cha for the final period.

The minimum addiction level is five points lower than the highest addiction level the character reaches while using the drug. For example, if a user has reached additiction 10 after two years of use, the character can reach a minimum addiction level of 5 with a successful withdrawal.

The withdrawal period is 24 hours. The effects of failure are acquire, violent rage, and paranoia. If the save succeeds, the character is confused and fatigued for 1d3 hours.

Some characters prefer to accelerate the progress of the drug. A month-long intensive drug therapy advances the addiction rating by 5 and requires a Heal check (DC 10 + addiction rating). If this check fails, there is no benefit and the character succumbs to a raging, paranoid state for 2d6 days. If the check succeeds, the character advances to the next effect level after only one month.

After six years or more of addiction, most users' Charisma score drops to 0. The user's personality collapses and the character lapses into a catatonic state.

Perfection: A psychoactive drug similar to dedication, this drug produces a mild euphoric state in the user. It is said to enhance perceptions and broaden the

UTILITY AND RECREATIONAL DRUGS

Drug	Addiction	Cost per dose	Delivery Method
Dedication	18	5 cr	Injected, ingested
Perfection	18	10 cr	Injected, ingested
Rage	20	20 cr	Inhaled, ingested
Spatiate	15	50 cr	Injected, ingested
Spindizzy	*	20 cr	Inhaled, ingested
Standard booster	*	50 cr	Inhaled, ingested
Quieting gel	—	400 cr	Contact

mind. Perfection also brings with it a lack of focus that hampers social interaction and calculation. The drug is sometimes called "space." It is as addictive as dedication. There are many stories of "dark monks" who were exiled from the Empire due to addiction to this drug. Most monastic orders forbid its use, considering it an obstacle to enlightenment. A few revere it as a gateway to truth.

This drug is common among pilots under the name "esperin," so named because of its supposed mystic properties. Addiction to esperin and Dex boosters is a constant problem among pilots.

Perfection is a continuous drug, and the effect levels are applied to the user at one month, 2d6 months, 1d4 years, and 1d6+4 years. The addiction effects are +2 Wis, –1 Cha, –1 Int; +4 Wis, –3 Cha, –3 Int; +6 Wis, –6 Cha, –6 Int; +8 Wis, –12 Cha, –12 Int. As with dedication, the minimum addiction level is five points lower than the highest addiction level reached.

The withdrawal period is 24 hours. The failure effects are acquire, severe depression, and a crisis of alignment if the user is lawful. If the save succeeds, the character is dazed and exhausted for 2d6 hours.

There are few examples of healthy long-term perfection addicts. Several dark orders worship "perfect ones," users supplied with a constant supply of the drug and sustained with life support equipment. These perfect ones are completely catatonic, but their followers believe them to be in a state of expanded perception.

Rage: This drug induces a violent rage, the effects of which are identical in many respects to the barbarian class ability. It is regarded as a sacred drug among some followers of the Warrior, the Destroyer, and the Adversary.

A rage user attacks the nearest target and continues attacking until there are no enemies left to fight. Under its influence, the user must make Will saves (DC 20) to avoid attacking friends if they are the nearest targets.

Rage is quite addictive (DC 20). Effects are sleeplessness and paranoia, fatigue, confusion, and then death (as the heart gives out). The minimum addiction level is 0.

Th withdrawal period is 24 hours. Success doesn't influence the withdrawal effects. In either case, the character wants to acquire more of the drug, becomes quite paranoid, and is belligerent. If the character is kept restrained, he returns to normal once the addiction is cleaned from his system. Note that alignment crises may occur while under rage's influence.

Spatiate: This drug enhances the user's ability to perceive and think in three dimensions. It provides a +4 circumstance bonus on Freefall and Pilot checks in space. The bonus also applies to any Use Device checks related to spatial relations, such as programming an astronav for a starcaster teleport. One dose lasts 1d3 hours. Somewhat addictive, it is not approved for Legion or Imperial Navy pilots, but it is otherwise rarely interdicted.

Robots are often seen as a threat by all but elite pilots. Many turn to this drug to give them a decisive edge. Once pilots become more skilled, however, they are able to compete without drugs. Unfortunately, by this time, many have become habitual users.

The addiction DC is 15. Addiction levels are fatigued (constantly fatigued), exhausted, and severe depression. The withdrawal period is eight hours. Effects are confusion if the save fails, or fierce headaches if it succeeds (–4 penalty to all actions).

Spindizzy: A popular hallucinogen and euphoric, this drug has long been outlawed in the Empire. However, with the rise of Mezzenbone, enforcement has become rather lax. People using spindizzy become disoriented and poorly coordinated. The effects are treated much like the blinded condition, except that actions requiring vision suffer a –4 penal-

ty. Characters under the influence of spindizzy gain a +4 circumstance bonus to resist all mind-affecting spells and magical effects. The character's mind is so befuddled that it is hard to influence it effectively.

Despite some civic campaigns warning against its usage, spindizzy is not physically addictive. A Fortitude save (DC 20) is needed to avoid being fatigued the day after using the drug. Many years of constant use can cause permanent loss of Dexterity and Wisdom (–1 point to each score for every 10 years or regular use).

Standard ability boosters: These drugs provide temporary increases to ability scores. There are separate drugs available for each of the abilities. Though fairly cheap, they have a number of drawbacks. Boosters are officially restricted to military personnel, but illicit use is rampant.

One dose of a booster grants a +1 bonus to an ability score. Increased dosage increases abilities accordingly: For example, four doses of a booster provide a +4 bonus to the designated ability score. The bonuses provided by boosters are lost at the rate of one point per hour.

The addiction DC is 10 plus two times the number of doses taken. A failure increases addiction by 1 but also causes the character to be stunned for a number of rounds equal to the dosage. Additionally, for every five points by which the saving throw was failed, the character suffers one point of temporary Constitution damage. Ability booster overdoses are occasionally fatal.

Booster addiction has a minimum level of 2. Each level of addiction decreases the related ability score by one. For example, a character with Strength booster addiction 8 suffers a –2 penalty to Strength. This effect lingers until the addiction is beaten. The withdrawal period is 24 hours. The effects are acquire and exhausted if the withdrawal save fails, and fatigued if the save is successful. The withdrawal DC is 10 plus two times the last dosage.

Dosage is calculated based on total boosting present in the system. For example, if a character has taken two doses of a Dexterity booster and injects two doses of a Strength booster, the second addiction save is made at DC 18 (10 + 4 + 4).

The character's effective dosage level is considered the total of all booster doses taken, regardless of lost dosage strength, as long as at least one dose remains in the character's system. That is, a character may take two doses of a Constitution booster, and then take another dose an hour later to maintain the +2 bonus to Constitution. For addiction, the character is considered to have taken three doses of boosters.

Quieting Gel: This substance is extremely unpopular among mages. The blue gel can be smeared on doorknobs or devices and is somewhat difficult to see (Spot DC 25, Search DC 15). It contains synthetic cells that temporarily paralyze the victim's vocal cords.

Anyone touching the gel with a bare hand is stricken mute within 2d4 rounds. The effect lasts 1d6 hours. A Fortitude save (DC 18) negates the effect. The victim gains a +4 circumstance bonus if the contact was particularly brief, but suffers a –5 penalty if the substance was ingested. The drug works against dwarves, elves, gnomes, half-elves, half-orcs, halflings, humans, and orcs. Half-dragons gain a +4 racial bonus to their saves. All other beings are unaffected, as their physiology is too different.

Remove curse and *lesser restoration* both dispel this effect. A Heal skill check (DC 20) can also be used if the character has a medkit. If the check is successful, the effect fades after 1d3 rounds.

Although possession of this drug is not officially illegal, law enforcement endeavors to track the movement of this substance. Using quieting gel on an unwilling victim can result in severe punishment.

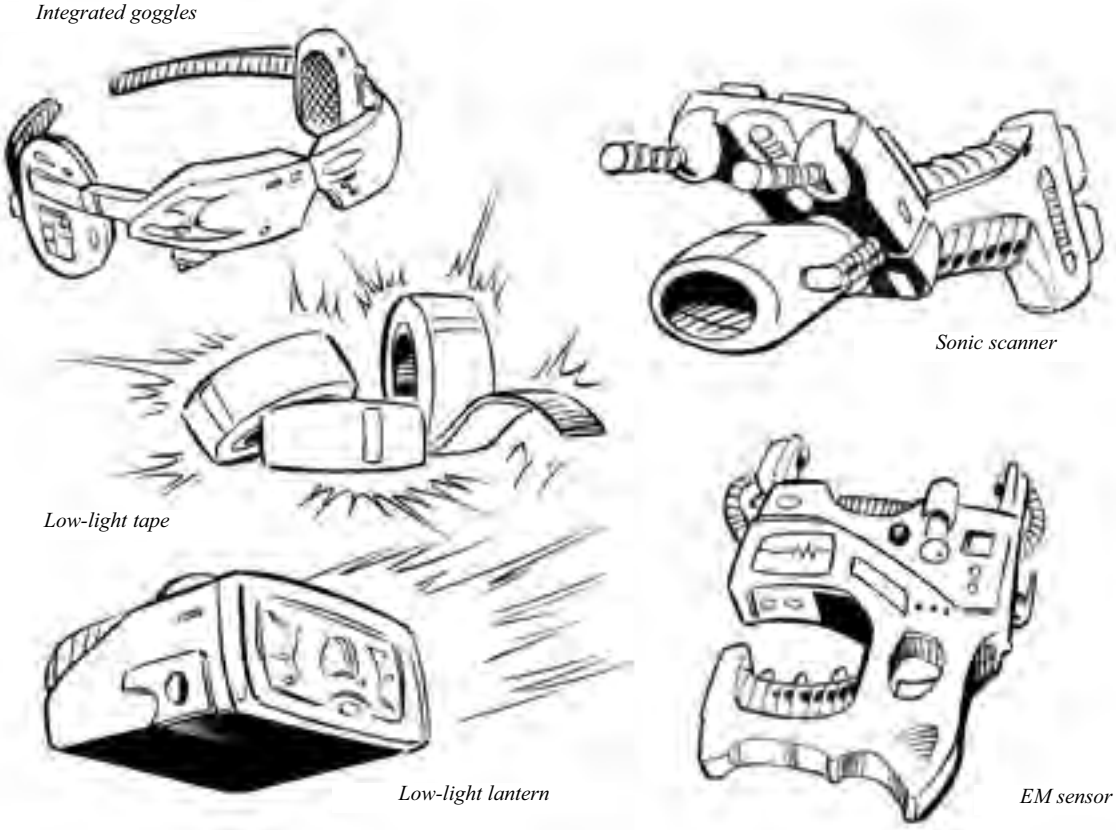
Sensors and Imaging

EM Sensor: About three inches long by half an inch wide, this is a sophisticated electromagnetic field sensor. It has an active and passive mode. In passive mode, it picks up fields that intersect with it. This is useful for passing through scanning equipment as well as detecting powered equipment. Even lamps and datapads produce rather distinct fields.

EM sensor Search and Spot skill checks have a DC based on the type of power source. Small devices, microelectronics, and the bioelectric field of living beings are DC 25. Larger items, such as visors and power systems, are DC 20. Weapons and other powerful, cyclic power systems are DC 15. Devices that produce strong electromagnetic fields, such as signal jammers, show up automatically.

The active mode is capable of picking up faint signals. Electronics with no power running through them still have faint fields and field potentials. Active mode grants a +20 circumstance bonus to Spot or Search skill checks for detecting electrically powered devices. The sensor itself, however, shows up brightly to anyone else using EM sensors. In addition, EMP damage to the sensor requires a Fortitude save (DC equal to the damage suffered) to avoid blinding the sensor.

The hardness and armor bonus of any obstructing



material are added to the DC of any Search or Spot checks using the sensor. However, EM sensors can detect fields through cover, particularly in active mode.

Integrated goggles: The abundance of eyewear available to the discriminating buyer creates a distinct need for packages. The common solution is a modular approach. Sensors are designed so that they can be easily installed into integrated goggles. Digital glasses, layer goggles, and IO glasses may also be installed. This system simplifies switching between modes. With IO glasses installed, vision type can be changed as a free action. Otherwise, the mode has to be changed manually, requiring a move-equivalent action.

The cost listed is for the base unit. Other items can be added directly to the price, with a possible 10% service cost.

Nightvision sensor: This is a small device, shaped like a thick coin about an inch across. These sensors are typically used in pairs and provide the wearer with low-light vision, as the racial trait. These sensors are typically installed into integrated goggles or attached to a port. Nightvision sensors can also be linked to programs, robots, and security devices. Nightvision sensors can be combined into an integrated visor less visibly, as part of the overall unit. The listed cost is per unit, though two are needed for best results. Relying on one sensor imposes a –2 penalty on all actions relying on binocular vision (such as ranged combat or piloting, most Search and Spot checks, etc.).

Low-light lantern: Two inches long, this device can provide illumination in a 60-foot radius, a 100-foot cone, or a long-range illumination mode. It can be carried or attached to equipment. This illumination is extremely dim: It provides no benefit to normal vision but functions like a flashlight for users of nightvision sensors or characters with natural low-light vision. With binoculars or a low-light scope, targets show up brightly and clearly, even on clouded nights or underground. However, using a lantern in this way makes the user stand out quite clearly to others with low-light vision or darkvision. Its internal power source lasts 100 hours before requiring a recharge.

Low-light tape: This gray tape comes in a standard roll. The tape glows like a phosphorescent strip, though the light emitted is only visible to users of low-light vision or darkvision. The tape is very useful in roles where low-light vision is common. It is used to mark access corridors and hatches in starships

SENSORS

Item	Cost	Weight
EM sensor	500 cr	1/2 lb.
Low-light lantern	30 cr	1/2 lb.
Low-light tape (1,000 ft.)	10 cr	1/2 lb.
Integrated goggles	250 cr	1 lb.
with EM/Layer/IO/IR/Nightvision/UV	1,550 cr	2 lb.
Nightvision sensor	150 cr	—
Infrared goggles	200 cr	1 lb.
Infrared sensors	100 cr	—
Ultraviolet goggles	200 cr	1 lb.
Ultraviolet sensors	100 cr	—
Sonic scanner	1,500 cr	4 lb.
Sniffer	500 cr	3 lb.

operated by elves, gnomes, and other races with natural low-light vision. It is also frequently used as an improvised source of illumination by military forces.

Infrared goggles: This eyewear allows the user to see temperature variations at a normal range of vision. During the day, heat from the sun may cause a great deal of "glare," limiting the usefulness of this technology. At night, the heat of animals and many machines shows up clearly against plants and other objects that closely match the ambient temperature. It's possible to follow recently made footprints, as each print leaves a heat signature on the ground. In a vacuum, temperature variations can be extreme, but infrared still works fairly well in most roles.

Undead and many objects are difficult to spot using infrared technology, as they blend in with the background temperature. However, the goggles are very useful for penetrating spells and other magical effects intended to prevent visual detection and identification. In general, the same rules apply to thermal sensors as apply to the blindsight special ability (see DMG, Special Abilities).

Infrared sensor: These sensors are oblong disks, three inches by one inch. Unlike nightvision, these sensors need a larger surface to properly detect and resolve thermal images. Two or more units provide normal visual range, while one sensor provides 1/4 normal range.

Ultraviolet goggles: Similar to other goggles, this eyewear allows the wearer to see into the ultraviolet spectrum. The greatest benefits are gained underwater, where such goggles allow the user to see twice as far as an unaided human.

Ultraviolet sensors: These are small disks less than an inch in diameter. Two installed in integrated goggles provide binocular UV vision. They can also be used as underwater sensors for robots or other devices.

Sonic scanner: This device looks like a pistol with a flaring barrel. Using sound waves, the scanner can probe below the surface of an object and identify substances and composition. The device's scanning range is a ray five feet wide and 10 feet long. This range is reduced by one foot per point of the object's hardness. Objects with different hardnesses are calculated separately. For example, if a scanner were trained on a wooden table, a ghost image of the table would be displayed. However, the scanner would not penetrate the stone floor very deeply.

Objects with hardness 10 or greater have a scanning depth of 20 inches minus the object's hardness. For example, scan of an iron object (hardness 10) would have a maximum depth of 10 inches.

Use Device checks can reveal composition and other details of objects scanned. A DC 15 check reveals basic composition and produces a good schematic of the interior of an object. A DC 20 check provides more detailed composition and design. A check of DC 25 and above produces an incredibly detailed analysis. Such an analysis would allow a scanner to pick out and identify different crystals within granite.

The scanner can function as a crude sonar device, though the field of view is narrow. It will not function in a vacuum.

Multiscanners are better than sonic scanners in several respects. A multiscanner does not require an atmosphere and has better range. It can also identify

materials much more easily. However, sonic scanners can probe deeper into materials. This use is particularly important for tasks such as security or geological surveying.

Sniffer: A common technology among law enforcement, sniffers are able to detect trace amounts of various chemical substances and compounds. Unlike the functions integrated into the multiscanner, sniffers are commonly programmed to recognize manufactured substances. Firearm propellant, blaster residue, drugs, and ozone from high-power devices are all targets for the sniffer. The range of a sniffer is more limited than a multiscanner, at 20 feet.

Sniffers are often set up at checkpoints, forcing would-be smugglers to pass by them. There are few good counteragents to sniffers. Armors may absorb sound, radiation, and other forces, but trace chemicals are difficult to contain. Most technologies and substances can be identified using these devices.

Using a sniffer to identify a range of strong, common chemicals requires a Use Device check (DC 10). These include chemicals such as gun propellant, armor gel, ozone from power systems, alcohol, and volatile or explosive chemicals. Unique chemical signatures based on race or species can be identified with a check DC of 20. Rare or hard to detect traces have a DC of 25. Even if detected, they may simply register as an "unknown trace."

A character with appropriate tools can attempt to apply counteragents and binders to himself or his illicit cargo. These efforts require a Disable Device check. The character must have 2 or more ranks in Knowledge (chemistry) or Alchemy to attempt this deception. If successful, the Disable Device check result is used as the new Use Device DC for the sniffer (if it is higher than the normal DC).

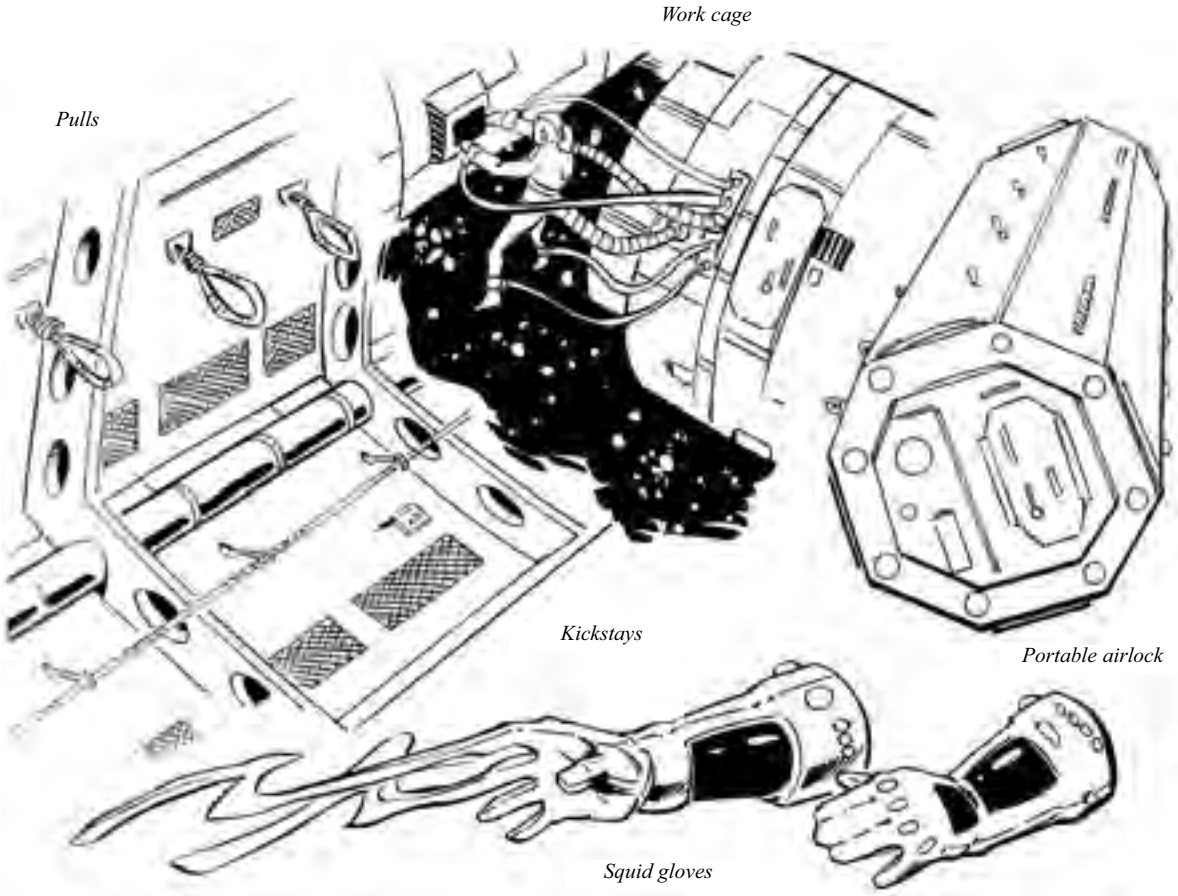
Space Gear

Communications satellite: These systems are found in orbit around developed worlds throughout the Dragon Empire. A network of these satellites allows a planet to support global telecommunications, including worldwide computer and information networks. It is possible to illegally access or hack a communications satellite, either from the surface of the planet or from orbit, though they typically have incredible security.

Defense satellite: These systems are a common method of orbital and planetary defense for both core imperial worlds and isolated outposts and colonies. Defense satellites can be equipped with any of the weapons available to starships, though these must be purchased individually. Defense satellites can typically attack either space- or ground-based targets. The system must acquire a target before firing, though it can do this and still fire its weapons in the same round. For the purposes of target aquisition, a typical defense satellite has a Use Device skill bonus of +15. A common model can fire two weapons per round with a ranged attack bonus of +20.

Gyro pack: This device is a series of gyroscopic wheels that are selectively coupled to electromagnets in the housing. The system allows a vehicle to turn around these gyroscopes without thrust. The listed cost and size is for a small backpack system that can be strapped on. If a character is floating away from any surfaces, manipulating the strap controls can reorient the character. The balance control program is useful and can be linked to a datapad and other peripherals. Larger gyroscope systems improve the handling of small craft and are useful for delicate docking maneuvers. Gyroscope turning systems for vehicles of Colossal size or greater are inefficient compared to vectored thrust.

Hydraulic claws: A favorite of boarding parties, commandos, and salvage crews, pneumatic claws help tear into and open breaches in hulls, doors, bulk-



heads, and hatches. The heavy tool looks like a pair of reversed, metallic lobster claws mounted in front of a power drive assembly with reinforced handgrips. The claws were designed to tear things open rather than grasp and crush them. Prongs at the claw tips can be inserted into an existing gap or seam where they can gain enough purchase to begin prying open a larger hole. When no prong-hold exists, serrated tips can slowly wear down a small hole into which the claws can work. Hydraulic pumps within the power drive assembly slowly jack apart the claws, which tear open the gap into which they are inserted.

The hydraulic claws automatically inflict 2d10 points of damage to a door or breach in a bulkhead each round. Most hatches, doors, or other apertures designed to open have enough of a gap into which one can work the claw tips. If the claws have no breach on which they can gain a pry-hold—usually on hulls, bulkheads, and walls not meant to open—the serrated claw tips take a number of rounds equal to the substance's hardness to bore a sufficient breach.

The claw configuration has a maximum extension of three feet, large enough to create a gap through which an unburdened, unarmored character can pass through.

The hydraulic claws are not stealthy equipment. When operating, the drive assembly barks like a straining draft animal. Since they work on counter-balanced hydraulic principles, the claws can operate in vacuum and zero-g environments. Using the tool in vacuum to gain access to a pressurized space does not negate this tool's loud engine, as the atmosphere within carries the drive assembly's vibrations through the claws and hull.

Mind-gripper boots: Manufactured from the tentacle paws of the kjanoth—a sentry beast known to inhabit the Dark Zone—mind-gripper boots help the wearer better maneuver in zero-g environments. They look like exotically textured boots with four curved claws at the toes and two widely spaced rearward claws at the heel. The material is flexible enough to fit one's foot and calf comfortably, yet still stretch to fit over a vac suit's foot coverings. As creatures indigenous to zero-g vacuum, the kjanoths' biosilicate bodies developed specialized physiological features to traverse their surroundings: decentralized brains, or neural nodes, and glands in their tentacle

KJANOTH

Large Aberration

Hit Dice:	4d8+12 (30 hit points)
Initiative:	+1 (+1 Dex)
Speed:	Fly 40 ft. (perfect)
AC:	17 (–1 size, +1 Dex, +7 natural)
Attacks:	4 claws +7, bite +2
Damage:	Claw 1d6+4, or bite 2d6+4
Face/Reach:	5 ft. by 10 ft./5 ft.
Special Attacks:	Frightful presence
Special Qualities:	Darkvision 60 ft., damage reduction 10/+2, zero-g habitat
Saves:	Fort +4, Ref +2, Will +5
Abilities:	Str 18, Dex 12, Con 17, Int 4, Wis 12, Cha 6
Skills:	Freefall +12, Hide +4, Search +1, Spot +6
Feats:	Alertness
Climate/Terrain:	Low- and zero-g, space
Organization:	Pack (5–10)
Challenge Rating:	4
Treasure:	None
Alignment:	Lawful evil
Advancement:	None

The mind flayers breed and raise kjanoths in the vacuous, zero-g wastes of the Dark Zone to serve as guard beasts. Their biosilicate bodies consist of a central, flexible blob from which four clawed tentacles emerge. A toothy maw extends from the ventral surface of the creature's torso like a razor-edged crater. Domed, multifaceted eyes bulge from irregular points on the body like shiny black pimples. Smaller photoreceptors run down the length of each tentacle. Kjanoths display a remarkable resistance to damage thanks to their combined biological and mineral cellular composition and a decentralized nervous system.

Kjanoths patrol by moving among spaceborne debris or the bulkheads of deep space installations. They move by grasping surfaces with their claws, pushing off with their powerful tentacles, and negotiating their surroundings with tentacle glands that exert gravitational forces. Decorative elements in the architecture or design of mind flayer vessels and fortresses also aid their maneuverings in zero-g conditions. Sometimes kjanoths lurk in a seemingly dormant state, wrapping their tentacles haphazardly around their torso to give the appearance of a small floating asteroid or piece of twisted debris.

COMBAT

Upon detecting intruders, a single kjanoth alerts others patrolling nearby (either fellow kjanoths on guard or other intelligent sentries), then carefully moves closer before attacking. Although individuals are formidable opponents, they prefer to attack in a pack to overwhelm intruders. If detected, kjanoths move swiftly to intercept their prey.

A kjanoth's speed of 40 ft. applies only in low- or zero-g conditions. If somehow lured into an environment with 0.5 gravity or higher, the beast cannot move, though it can still lash out to attack with its tentacles with a –4 penalty on attack rolls. Given its decentralized nervous system and

symmetrical physiology, a kjanoth can attack with all four tentacles each round without penalty.

Damage Reduction (Su): The kjanoth's decentralized organs and biosilicate physiology give it damage reduction of 10/+2.

Frightful Presence (Ex): Those foreign to the Dark Zone find the kjanoth's appearance extremely unsettling. When one first appears, characters of 3rd level or lower who view it must make a Will save (DC 10) to avoid its frightful effects for one day. Those who fail become shaken and suffer a –2 morale penalty on attack rolls, weapon damage rolls, and saving throws.

Zero-G Habitat (Ex): Since space is its natural habitat, a kjanoth ignores penalties gravity-well creatures suffer for moving, fighting, or otherwise acting in zero-g environments. This ability also gives the creature a +8 bonus on Freefall checks.

paws that help manipulate gravity. Craftsmen shape the hide to better fit conventional beings' feet, and treat the boots to preserve the inner glands and neural nodes and strengthen the outer skin. When worn, the neural nodes interpret signals from the wearer's own mind through his nervous system to anticipate intended movement in zero-g conditions, even through a vac suit's material. Acting according to the user's intentions, the glands exert gravitational forces to better maneuver toward or away from nearby surfaces.

Mind-gripper boots provide various bonuses to movement in zero-g environments. The wearer can move at normal speed in low- or zero-g conditions without gravity check penalties. Kjanoth boots also allow the wearer to act as if he had the Zero-G Tolerance feat, and provide a +2 circumstance bonus to Freefall checks. In gravity environments, they give the wearer a +2 circumstance bonus to Jump checks. The claws provide no bonus when used in combat. If the craftsmen don't intentionally blunt the boots' claws to ensure more stable footing for their clients, they eventually become dull through regular use in gravity environments.

To manufacture such boots, one must hunt down the kjanoth or salvage a corpse. Since the creatures only occasionally venture out of the Dark Zone, hunters like the Dark Edgers of Kalibrig make forays into that region specifically to find and kill the beasts for their biosilicate bodies (various other organs have uses as spell components or elements for psionic items). Only the most skilled Edgecrafters know how to successfully preserve and shape the hide without ruining it. These boots frequently grace the feet of nobles with orbital holdings, pirate lords who hide among asteroid fields, elite deep-space commandos, or acrobatic thieves who excel at infiltrating null gravity installations.

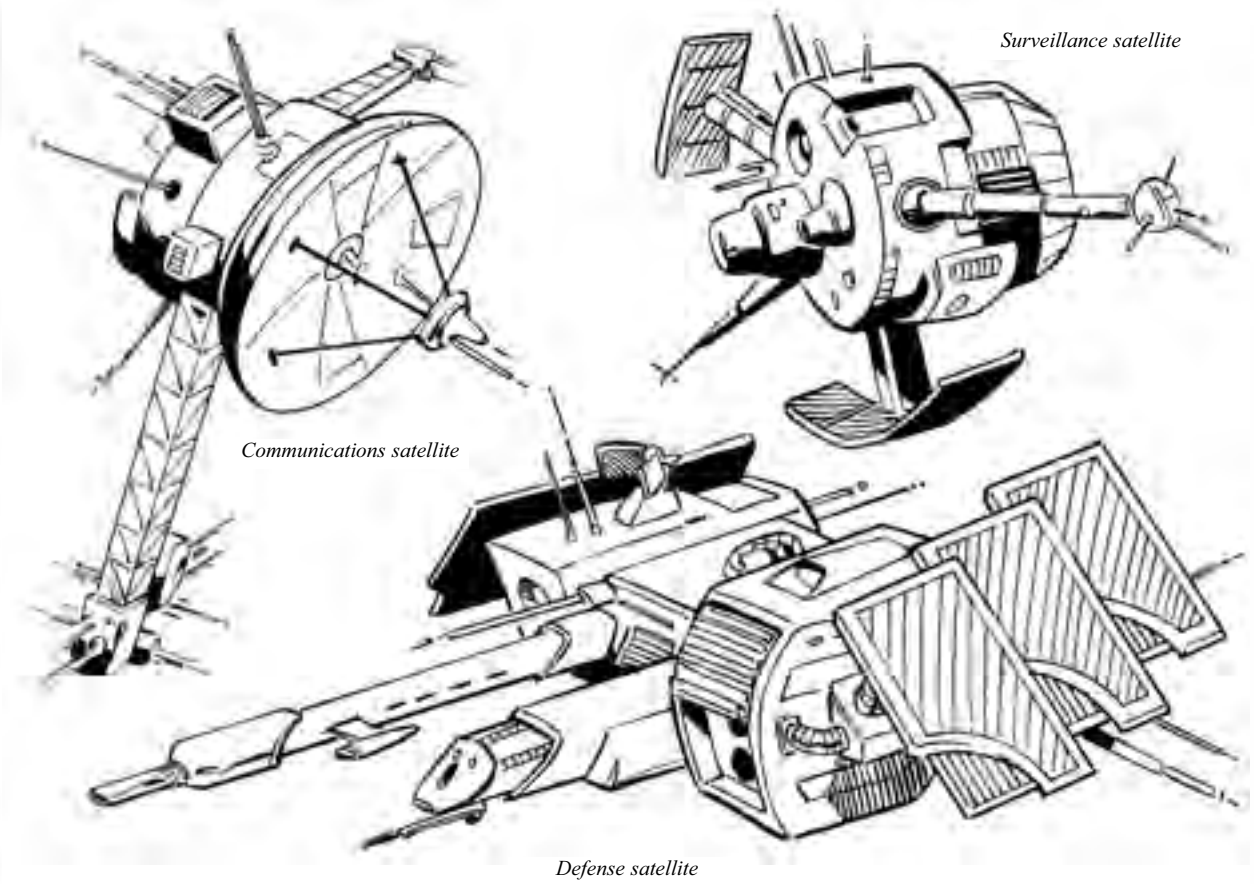
Pulls, kickstays: The two most common sights in freefall or microgravity habitats are pulls and kickstays. Pulls are nothing more than knotted ropes or loops attached to the surfaces of corridors and other well-traveled areas. A single rope can be set up as a bridge through a large room.

Kickstays are synthetic gripper strips placed on surfaces throughout low-gravity habitats. The personnel's footwear and gloves feature mated grippers that allow them to latch on to bulkheads and surfaces. A skilled tap of the foot or hand can stop a character from drifting, while a quick kick gets them moving again.

Characters who can use pulls and kickstays to control their movement gain a +4 circumstance bonus on Freefall checks.

Safety reel: Personnel undertaking extra-vehicular activity in space or zero-g environments employ the safety reel as an added security measure against drifting. It consists of a boxy unit containing the reel, controls, motor, and 200 feet of synthetic fiber rope. A metal clip conveniently attaches the cord to a belt, safety harness, or any of the utility loops on a character's vac suit. An insulated metal wire runs down the rope's core to a small control remote attached to the clip.

The anchor unit baseplate employs a powerful magnet to affix itself to a hull, usually near airlocks or other access for extra-vehicular activity. On the standard setting (selected from the remote control) the rope pays out automatically as it senses a character's gradual motion in zero-g—using magnetic boots, a thruster pack, or the character's own skill to maneuver. It releases enough slack for steady movement; to jump short distances, the user must gather extra line before launching himself toward his goal. The cord keeps the user attached to the anchor unit if he missteps, drifts off, or otherwise becomes separat-



ed from a means of maneuvering in zero-gravity.

To activate the motor to reel himself back in, the user jerks once on the taut line. This engages the retraction drive, drawing in the line at a rate of 15 feet per round. When jerked twice, the motor draws in the line in an emergency mode, at 30 feet per round. The remote control also contains buttons that signal these commands to the main anchor unit: a yellow button for gradual reel-in, red for emergency retrieval, and green to return to standard pay-out mode. To "land" properly the user must employ his Freefall skill to adjust his attitude in relation to the surface to which the anchor unit is affixed. He must make a Freefall check (DC 10) to do so during a gradual reel-in; the DC increases to 20 for emergency retrievals. Failing either check results in the character hitting the surface rather awkwardly, stunning him for one round (he loses his Dexterity bonus to Armor Class and can take no actions; foes gain a +2 bonus to hit him).

The motor and cord can accommodate one Medium-size character, their armor, and attached gear. Since the safety reel does not have sufficient power to operate in full-gravity environments, it cannot function as a hoist reel to haul material or personnel up a slope.

Those working in gravity-free environments frequently employ safety reels, especially when operating outside an enclosed area. The orc brigands of the Galinak Reaches use them to transfer small duffles of plundered cargo or hostages from subdued ships to their raider vessels. Stardock workers tether themselves with safety lines while engaging in hull work. Deep-space salvage teams use them to extricate crewmembers who encounter unexpected trouble. The devices come in handy on any spaceborne vessel requiring exterior repairs when far from pressurized, artificial gravity maintenance facilities.

Squid gloves: Squids are helpful devices for workers in low gravity and are occasionally used in other environments. The glove is thick and covered with a spongy gel. This gel is a mimetic material, controlled through circuitry in the base of the glove. The wearer's gestures and muscle tension activate the gloves' various functions.

The basic purpose of the glove is to grab surfaces or items beyond the normal reach of the character. This is handy in freefall, where a character may be motionless, drifting out of reach of any furniture,

SPACE GEAR

Item	Cost	Weight
Communications satellite	50,000 cr	8,000 lb.
Defense satellite	125,000 cr	12,000 lb.
Gyro pack	300 cr	10 lb.
Hydraulic claws	500 cr.	30 lb.
Mind-gripper boots	3,500 cr.	1 lb.
Pulls, kickstays	1 cr/10 ft. wall	—
Safety reel	450 cr.	15 lb.
Surveillance satellite	75,000 cr	10,000 lb.
Squid gloves	300 cr	1/2 lb.
Tox pad	7 cr.	—
Work cage	1,250 cr	20 lb.

pulls, or other surfaces. A gesture with a squid sends a tendril darting out to wrap or stick to a surface. Once a grip is established, another gesture pulls the character over. Small objects can be enveloped in a tendril and retrieved.

The system has a small integrated computer, but it still takes some getting used to. A "grab and point" gesture toward a floating screwdriver releases a tendril to wrap around it and pull it to the user. A subtly different gesture causes an adhesive tendril to shoot out and attempt to anchor itself to a nearby surface.

Squid gloves have good tensile strength but not much power. If its pulling meets any resistance, it has an effective Strength of 2. In this case, the glove tendrils function as ropes that a character can use to tug on. Squid gloves can take about a month of active use before losing elasticity.

Surveillance satellite: These systems use digital, optical, and thermal imaging to monitor places, vehicles, people, and other surveillance targets. They are also equipped with a variety of electronic data interception and signals intelligence equipment capable of eavesdropping on a broad range of telecommunications. As with defense sats, the Empire maintains more sophisticated models that are actually robotic, semiautonomous spacecraft with extremely sophisticated programming.

Tox pad: This cheap safety device detects the presence of life-threatening environments. It consists of a thin plastic square five inches to a side, with a four-inch diameter chemical indicator disk in the center. Each pad comes in a hermetically sealed package to prevent spoilage in transit. Removing the adhesive backing primes the disk and allows users to stick the tox pad almost anywhere: on starship bulkheads, near sensitive equipment, in one's berth, by the door, or near ventilation ducts. The indicator disk contains substances that react when exposed to life-threatening conditions. When it comes in contact with noxious gas, smoke, industrial pollutants, and other deadly substances, the indicator disk turns from white to a fluorescent red that stands out from the stark white backing. The chemicals also react if they sense a significant drop in oxygen or pressure.

Since the indicator disk works on chemical principles, it does not sound any siren nor activate any electrical alarm system. It relies on someone passing by and visually noticing that it's turned red. The tox pad gives no indication of the specific hazardous condition present.

This device finds wide usage among spacers and others who work in confined areas or near poisonous substances. Starship crews place tox pads in sensitive personnel areas (berths, lounges, duty stations, main companionways), often sticking one high and one low to detect the broadest range of heavy and light substances. Savvy smugglers sometimes purposefully taint some tox pads (or save used ones) to place near sensitive cargo or hidden compartments to distract, unnerve, and deter customs inspectors.

Work cage: This is a small backpack device designed for vac suits, work suits, and specialized combat armor. When activated, small cables and arms extend from the backpack, seeking out the nearest surface. Anywhere a grip or socket can be established, the cable locks in. Eventually, within 1d3 rounds, a cage of lines and joined segments forms around the user. Bases typically have marked sockets

SPACE GEAR

	Hardness	Hit Points	Cost	Weight
External hatch	*	*	*	*
Interior pressure door	10	50	50 cr	10 lb.
Light interior door	1	10	10 cr	5 lb.
Portable airlocks				
Standard	6	40	1,000 cr	15 lb.
Military	10	80	6,000 cr	45 lb.

designed for work cages. The maximum range of the cable is 10 feet, though there is no effective minimum range for the retractable and adjustible cables.

The cage responds to simple movements. If a character twists his torso and head slightly, the cage turns him in that direction. By learning the cage's responses to various motions, a character can use the cage for low-gravity stability suitable for just about any task, including combat.

A work cage negates all penalties due to low gravity and allows the user to function without making Freefall checks. The cage can be challenging, however, and all of the character's physical actions suffer a –2 circumstance penalty. The character can make a Use Device check (DC 10) as a free action once per round to negate this penalty.

Work cages are one of several tools common to weightless habitats. Even diehard spacers used to zero-g will often use these devices when doing repair work. Unlike other zero-g devices, the cage allows a character to use leverage in various tasks. A character can push against a panel, twist a ratchet, fire a gun, and perform other actions without the danger of drifting away.

Spacecraft Structural Features

External hatch: Unlike other doors, external hatches require a great deal of strength and durability. As part of the hull of a ship or orbital, a weak external door can be catastrophic. External hatches have a hardness equal to half the normal hardness of the vehicle or station. A hatch's hit points are 10 times its hardness rating. Its size is equal to the size category of the largest creature or vehicle it is designed to accommodate, and its weight is calculated as per a vehicle four categories smaller, with a minimum of 10 lb. (see the *Starfarer's Handbook*, page 163). For example, an external hatch designed to admit Medium-size creatures weighs 10 lb., while a bay door designed for Colossal vehicles weighs 2,000 lb. An external hatch costs a number of credits equal to 10 times its weight.

Spacecraft and many aircraft do not allow manual opening of external doors. These doors often have backup power systems. Manually opening an external hatch requires a Repair check (DC 30). A laser torch or similar equipment provides a +4 circumstance bonus on the check.

The size and placement of a hatch depends on purpose. Loading doors are large and constructed using independent segments. Doors for personnel are designed for the expected size of the crew. Ship-bay hatches, for bases and large vessels, are solid units that unlock and are moved aside.

On spacecraft, external hatches may be used as both the external and internal doors of a reinforced airlock. This is typical on military vessels, as it maintains integrity when the external door is open. In larger craft, an entire bay may be kept in a vacuum, with airlocks leading to pressurized compartments. In these cases, the airlocks rely on interior pressure doors. External airlocks on most ships have an external hatch and then an internal pressure door, a compromise between safety and economy.

Interior pressure door: One of the most common components of starships and bases, the standard internal door comes in several sizes and models. All are hardness 10, and their hit points and weight are half that of external hatches. Each door has two sliding segments with flat teeth on each side. The teeth allow the doors to lock more easily and form a stable seal against pressure. The Break DC of an interior pressure door is equal to half its hit points when closed and equal to its total hit points when locked and sealed.

The doors can be operated without power. Each has a small backup cell, as well as handles that can winch

the door open or closed. The teeth can be slid out of the way to assist in emergency conditions. They are set on one slide mechanism. It takes a single round to slide the teeth back and another round to open the door enough for a Medium-size creature to slip through. Another round of work can get the door fully open.

Internal doors have a basic lock that can be operated from either side. Most also have lock controls that are handled remotely or in response to programmed conditions. Security locks require codes or other signals to bypass. When an area depressurizes, internal doors typically close and the locks will engage. It is also possible that an officer will secure these doors, possibly to prevent panicked tourists from opening them or to prevent a boarding action.

Light interior door: Space crews traditionally prefer pressure doors to light doors. With catastrophic loss of pressure, a light door in the wrong place can spell the death of passengers and crew. These lightweight doors reduce the mass and expense of a ship, and captains and traders prefer to use them wherever possible. The doors are used for minor use within other rooms, such as closets and cabinets. They are also used for dividing larger spaces. Pressure doors are placed to divide a ship into a number of sections, with some redundancy. Sections can then be divided using light doors. The same applies for walls: Section walls are tough and limit blowthrough from collisions or attack. Compartment walls provide limited protection, and ventilation systems usually mean an entire section depressurizes as one unit.

Light doors have a hardness of 1 and 10 hit points. Compartment walls and some more rugged interior doors are hardness 4 and 20 hit points.

Portable airlocks: A variety of portable airlocks are available with designs depending on the intended purpose. Standard portalocks are made of a flexible, puncture-resistant material with a rigid framework that locks into place. They expand to 20 ft. by 10 ft. by 10 ft., with a flexible door at either end of the longest dimension. Once expanded, the walls have a little give, with numerous handholds and kickstays. Multiple locks can be hooked together if a longer passage is needed.

The doors form a tight pressure seal, expanding like foam along the edges. The seal is formed through magnetic attraction, adhesives, microvalent grip, and simply expanding around irregularities on the surface. The door panels are made of a transparent, malleable material. This allows someone inside the lock to work a security panel or door mechanism outside.

The system connects to a variety of vehicle ports, allowing air to be drained or refilled. Though intend-

ed for rescue, portable airlocks are sometimes used as temporary solutions on ships or bases. They can also function as emergency shelters in the event of pressure failure. Finally, law enforcement and military forces sometimes use them for emergency access to pressurized facilities.

Portable airlocks have a supply of breathable air sufficient for one person for 36 hours. Power and connection to vehicle systems can extend this indefinitely.

Military airlocks are more rigid and expandable to 100 ft. by 10 ft. by 10 ft. They see use in emergency rescue, but are designed for boarding actions. Typically, the lock is extended and bonds with a door or wall. Specialists then break into the door or burn through, with a team ready for rescue or attack.

Subterfuge Gear

Any-card: At first glance, the any-card just looks like a dull gray piece of rigid leather in the shape of a standard ID card. When held, the any-card's surface reflects the image of a particular identity badge the user focuses on in her mind.

The user can only reproduce IDs she has examined before, displaying images of individuals with which she is familiar—she must make a Forgery check (DC 15) to successfully recall the details of a specific identity badge. The difference between the check result and the DC becomes a modifier that affects her subsequent Concentration checks.

For example, a Forgery check result of 18 grants a +3 bonus to her Concentration checks for that particular ID; a Forgery check result of 10 imposes a –5 penalty on such Concentration checks.

To initially mold the card surface to a specific ID, the user must make a DC 25 Concentration check. Even if the user fails this check, the card still reflects a general ID, but not a very accurate one. The difference between the DC and the actual check result becomes a bonus or penalty to anyone trying to determine if the document is a forgery.

The any-card retains an ID image as long as it remains within the user's natural bioelectrical field, usually in her hand or clipped to her clothing. It proves adequate for passing routine security checks where one simply displays an ID, but it becomes risky under more intense scrutiny. If it leaves the bearer's grasp, it goes blank and awaits new neural signals to trigger its capabilities.

The any-card doesn't work in electronic card readers or other mechanical input devices. It functions solely as a means of reflecting images of documents from the user's mind.

Only the Edgecrafters of Kalibrig know the true origins of the extraordinary any-card, but most believe it consists of a section of doppelganger skin stretched over a thin mithral core two inches wide and three inches long. The essential materials come from the Dark Zone, retrieved by daring adventurers willing to brave that mysterious region's many horrors.

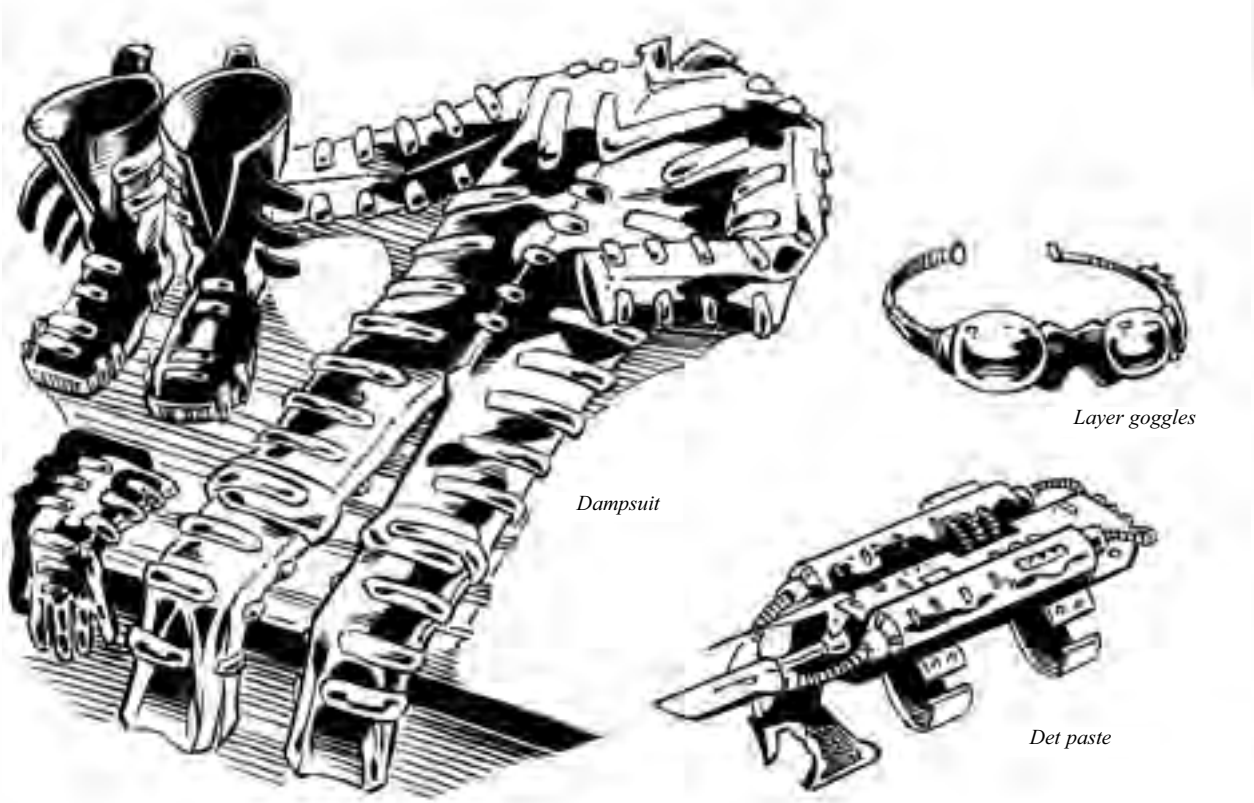
These items rarely find their way into conventional markets. Those willing to bargain with the Edgecrafters of Kalibrig—or retrieve the necessary materials—can purchase them outright. Others must deal with the criminal underworld, shadow operatives, or sinister envoys with hidden agendas and strange requests for payment. Members of the intelligence community treasure any-cards as extremely helpful tools during operations. Rumors claim deep-cover ISPD agents use them with practiced ease to gain access to sensitive facilities and infiltrate secure fortresses.

Cutout sensors: Available both for eyewear and sensors, this technology incorporates redundant circuits and sensory inputs that allow the user to route around damaged sensors. For each redundant system, cost and size increases by 20%. Any time a sensor is damaged or blinded, 1/5 of its hit points can be replaced as a standard action by the user. If tied to other devices, this can be programmed ahead of time as an automatic, contingent action (such as "if hit points go below 10, send in another sensor but leave at least one as a spare"). For vehicle sensors, each activated sensor can eliminate a –2 penalty due to sensor damage. A set of digital binoculars with two cutouts would cost 1,050 cr.

Dampsuit: A dampening suit uses sonic technology to mute sound around the wearer. The suit can be set to negate only specific sounds or all sounds within 10 feet of the wearer. Entertainers wearing dampsuits can produce interesting effects, such as muting all sounds coming from them except for their voice. A damp suit provides a +10 circumstance bonus on Move Silently checks. If set to area effect, it can also make communication and spellcasting difficult near the wearer. The suit works well underwater, granting a +4 circumstance bonus against sonic detection.

Det paste: A favorite of combat demolitions experts, det paste consists of highly concentrated synthetic explosive designed to burn intensely without the large blast of other types of explosives.

Det paste comes in a foot-long plunger tube for easy application. Engineers simply apply the paste with the plunger nozzle, which extrudes the explosive



Dampsuit

Layer goggles

Det paste

in an inch-wide line with an even thickness. Treat this as a Demolitions check (DC 15). The minimum time to complete the task is 1d4 rounds.

A tube of det paste contains 10 applications of explosive, with increments marked right on the plunger. The paste burns at high temperatures and inflicts concentrated damage in a small blast area. Each application deals 1d10 points of damage to the target. For instance, if an engineer applies six doses to a hatch she intends to blow, the det paste delivers 6d10 points of damage when ignited.

Det paste is highly flammable once it's dispensed from the tube and exposed to atmosphere. It ignites when it comes in contact with any open source of flame or electricity, or any of the various types of fuse, timer, or impact detonators. A weapons hit that generates a spark, flame, or electrical charge also sets it off. If applied in vacuum it has less of a chance of accidental ignition, but still burns as furiously due to its volatile chemical composition. The user does not need to make an attack roll to set off the det paste unless weapons fire is the only means of detonation. When it explodes, det paste automatically inflicts damage against anything or anyone to whom it's applied, as well as anyone within the five-foot blast radius.

Carrying a tube of det paste can sometimes prove a liability. If a full tube takes a direct hit in combat, it explodes and deals 5d10 points of damage to anyone within the blast radius. Since the tube seals the paste from the atmosphere, damage from a tube hit in combat is based on only half the amount of paste remaining.

Det paste is restricted to proper authorities, official military forces, and licensed demolition experts. Acquiring it usually entails guarded inquiries among underworld contacts, several well-placed bribes, and a hefty fee to an illicit arms dealer.

Folding viewport: The folding viewport consists of a round or square cloth two feet across imbued with elements of the *clairvoyance* spell. Woven from silk and spun flexiglass and decorated with an embroidered border, it frequently passes as a scarf or shawl. The cloth naturally adheres to relatively flat surfaces (walls, floors bulkheads) when spread against them, and allows one to see up to three feet through the solid barrier into the space beyond, assuming proper lighting conditions exist there.

Vision is limited by the smoothness of the surface to which the viewport is applied. Clarity depends on

SUBTERFUGE AND SECURITY GEAR

Item	Cost	Weight
Any-card	1,200 cr	—
Cutout sensors	+20%	+20%
Det paste	525 cr	2 lb.
Dampsuit	1,750 cr	3 lb.
Folding viewport	7,500 cr	1 lb.
Layer goggles	50 cr	—
Mini-tagger	150 cr	—
Morpher mask	6,700 cr	1 lb.
Morphic equipment	3x/8x	—
Nano-lockpick	750 cr	—
Nano-tracker	350 cr	—
Sentrette	150 cr	1 lb.
Spike mat	50 cr.	1 lb.
Tackclay	10 cr	1 lb.
Thornhedge seed	350 cr	3 lb.
Vocoder	1,000 cr	—

the cloth's fit over the barrier; a smooth surface reveals a well-focused scene, while rocky or uneven walls show blurred or warped views. Conditions on the other side of the wall also determine the quality of vision. Magically enhanced senses do not work through it. Lead or magical defenses can block vision, just as with the *clairaudience/clairvoyance* spell. The viewport indicates whether lead, magic, or simply the thickness of the obstruction prevents the device from working properly. Since it only enables vision through solids, spells cannot successfully be cast through the viewport unless the spell properties themselves can pass through walls. The folding viewport does not allow for transmission of sound from the viewed space unless it would naturally pass through the barrier.

Although it doesn't create a corresponding window on the other side, or employ a magical sensor near the subject like the *clairvoyance* spell itself, the viewport's eerie qualities can cause uneasy and suspicious feelings within those visible through its field. Subjects who make a Spot check (DC 25) recognize that someone is watching them, though they cannot immediately determine whether by electronic or magical means.

The folding viewport requires no magical ability to use. Although one can fold, store, wash and even crease it, the viewport ceases to function if its threads become damaged; it has 2 hit points and hardness 1 for purposes of resolving damage inflicted against it.

Although the drow of the ISPD frequently rely on their own *clairvoyance* spells to keep tabs on suspects, they sometimes equip Imperial Police units undertaking surveillance or undercover operations with folding viewports to surreptitiously observe their quarry. Some security installations also install stationary versions of the folding viewport manufactured entirely from flexiglass for observation purposes (these have the same cost and hit point value as the viewport), though these are not easily portable.

Caster Level: 5th; *Prerequisites*: Craft Wondrous Item, *clairaudience/clairvoyance*; *Market Price*: 7,500 cr; *Weight*: 1 lb.

Layer goggles: The electronic lenses of this device consist of two layers. The outer layer is composed of an intricate array of light receptor cells. The inner layer is similarly composed of light emitting cells. Between the two layers is a basic transfer circuit. The goggles create an artificially reproduced image of what the wearer would normally see. The goggles buffer any visual effects that would ordinarily damage the wearer or his vision. This includes gaze attacks that require the victim to meet the creature's gaze and spells that create magical effects, such as *sunbeam* and *sunburst*. The goggles protect against blindness and other visual impairments, but they do not protect against physical damage from such effects.

The image created by the goggles is never perfect, and there is a significant lag time between visual

stimuli happening in realtime and the reproduced images that are transmitted to the wearer. As a result, the wearer suffers a –2 penalty on initiative checks and a –4 penalty on Search and Spot checks when wearing the goggles.

Mini-tagger: Many who undertake surveillance operations use tracer devices to keep track of their subjects. Mini-tags consist of miniaturized transponders that emit coded signals on a predetermined frequency. The tagger's microcircuitry, miniature power source, and transmitter come woven into a thin cloth strip smaller than a human's fingernail. It incorporates micro-hooks, a miniature magnet, and chemical adhesive, allowing it to adhere to most surfaces.

One can place a mini-tag with a sleight-of-hand gesture or "accidental" brush against the unsuspecting subject. This requires a Pick Pocket check opposed by the subject's Spot check.

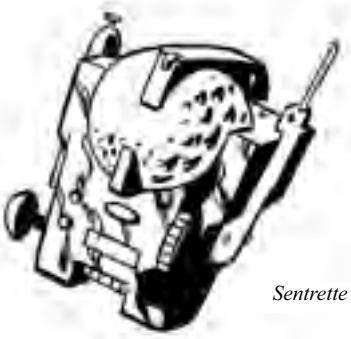
Each mini-tagger comes with a small tracker unit tuned to the transponder's frequency and code. A simple visual readout shows the subject's direction and distance relative to the unit. When placed successfully, the mini-tagger gives characters a +20 circumstance bonus on Search, Wilderness Lore, or Urban Lore checks (depending on the setting) to track a marked subject. The coded transponder has a range of 5 kilometers; if the subject passes out of that range, the bonus no longer applies. The device's internal power source can sustain constant transmission for 50 hours.

Since they adhere to the subject's exterior, mini-taggers sometimes fall off under adverse conditions: rain, wind, submersion in liquid, friction against other surfaces, extreme activity or combat. A simple scouring of the subject's surface can remove the device, and it may be left behind if the subject sheds clothes or gear to which the tagger was attached.

Each mini-tagger comes packaged in an easy-to-handle plastic sheath attached to its companion receiver unit.

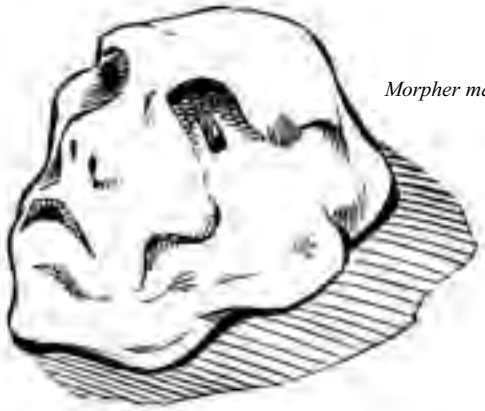
Morpher mask: The morpher mask is a rare but much sought-after item used in espionage work and undercover operations. It appears as a blobby handful of gray plastic, often sitting in its bag of thin, pliable leather. When applied to the face, it expands to cover the user's features and morphs into a visage the wearer focuses on in his mind. The fully articulated mask allows the user to mimic both general facial types and individual faces he's seen before.

The wearer simply places the mask on his face. It automatically molds to the shape of his features, leaving gaps to allow the eyes, nose, ears, and mouth to



Sentrette

Sentrette handheld receiver



Morpher mask

Nano-lockpick

function. The mask also begins responding to neural impulses, morphing to match the image the user forms in his mind.

Once the mask is successfully formed in place, it provides the wearer a +10 circumstance bonus to Disguise checks and any other Charisma-based skill checks related to the disguise (such as Bluff, Diplomacy, Gather Information, and Intimidate). Although it doesn't change the user's voice or body type, it still provides the bonus assuming the wearer can adequately mimic these characteristics.

The mask maintains its appearance until removed or the wearer becomes distracted. For initial distractions, the user must make a Concentration check (DC 15). Routine encounters do not require this check, but anything that catches the wearer off guard does: participating in combat, sustaining an injury, engaging in an argument, or undertaking another concentration-intensive action (like casting a spell). Failing this check under pressure causes the mask to simply lose its form and fall from the user's face.

Given the morpher mask's strange biological and mentally attuned properties, many believe it originates somewhere in the Dark Zone. Nobody is quite sure who (or what) manufactures them, or the exact process and materials used. The masks surface on the black markets of worlds bordering that region, but merchants prove surprisingly close-mouthed about their sources. Secret government operatives, shadow agents, political vigilantes, and shifty ISPD officers often snatch them up as soon as word leaks that they're available, paying exorbitant sums from undisclosed funding sources. Rumors claim the masks have hidden, sinister properties that reveal themselves after time. Others believe the masks are bio-engineered from the internal gland that controls a doppelganger's shapechanging ability.

Morphic equipment: Equipment can be designed to change shape and form. Morphic tools grant a +1 circumstance bonus, in addition to the standard bonus for tools of their type, for applicable tasks. Morphic weapons can be concealed easily, flattening against the body or changing shape to fit specially designed holsters and sheaths. The DCs of Spot and Search checks against morphic equipment designed for concealability are increased by 5. Morphic devices triple the base cost of an item. Highly morphic equipment can be designed with double the bonus and eight times the base cost.

Nano-lockpick: This surreptitious entry device

employs microscopic constructs to open mechanical and electronic locks and leave them operable afterward. It consists of a handle from which extend a short tension bar and flexible biogel keyblade imbedded with specially programmed nanodrones.

When thrust into a mechanical lock, the miniscule devices mold into the lock pins and help them clear the cylinder; they provide a +6 circumstance bonus to Open Lock checks on conventional mechanical locks. The biogel keyblade can also adjust to penetrate i/o slots and plugs on most electronic locks. Drawing power from a microcell in the lockpick's handle, the nanodrones help manipulate the circuitry interface and circumvent the lock's security protocols, providing a +4 circumstance bonus on Open Lock checks against common electronic locks.

The device comes in a sheath that protects the nanodrones between uses and provides suitable conditions in which they can survive indefinitely. If the user fails to replace the lockpick in this utility sheath, the nanodrones slowly atrophy, dying off within 10 hours. The sheath has a clip to attach it to belts, bandoliers, clothing, and other useful locations.

Although initially developed by engineers working for the Adamantine Order, nano-lockpicks have seen widespread use among those seeking to gain entry to secure areas: the criminal elite, unscrupulous diplomats, combat entry specialists, ISPD operatives, and even law enforcement agents. Conventional markets do not openly offer the device for sale; one must call in favors and spread around some credits among black-market contacts to obtain one.

Nano-tracker: Bioengineers working with the Imperial Special Police Directorate created the nano-tracker to better track subjects without their knowledge. This device employs transponder technology similar to the mini-tagger at a near-microscopic level. Specialized nanodrones infused into a nutrient wax emulate all the functions of an ordinary tracker, with a near-microscopic transmitter that sends coded signals on a predetermined frequency to a corresponding receiver unit that indicates the subject's direction and distance. The nanodrones draw power from the subject's natural bioelectrical field supplemented by microburst batteries in the nutrient slime.

The user applies the tracker with a dropper that deploys the nutrient wax containing the nanodrones. Although it cannot "shoot" the tag over a range, anyone can surreptitiously discharge the dropper on an unsuspecting target with a Pick Pocket or Dexterity check opposed by the victim's Spot check.

The tracker often appears as a small, slimy blotch of dirt or grime. Nanodrones adapt themselves to change the tag's overall color, shape, and texture to better blend into and adhere to whatever surface they're placed on, so they're more difficult to notice or dislodge. Nano-trackers do not fall off subjects while active—they must be detected and intentionally removed.

Unlike conventional tracers, nano-trackers can be introduced into the subject's food or drink to infiltrate his body. The nutrient wax dissolves in liquid and merges with food, but others can notice it with such spells as *detect surveillance*. Once the nanodrones enter the subject's body, they adapt to survive in the digestive environment. They form painless cellular hooks that grab hold in the organ most conducive to their survival and the transmission of their signal.

Each nano-tracker comes with a small tracker unit tuned to the transponder's frequency and code. When placed successfully, the device gives characters a +10 circumstance bonus on Search, Wilderness Lore, or Urban Lore checks (depending on the setting) to track a marked subject.

Given its near-microscopic size, the nano-tracker has a much more limited range than traditional tag devices. The coded transponder has a range of 1 kilometer; if the subject passes out of that range, the bonus no longer applies. The device's internal power source and its bioelectric field transformer can sustain constant transmission for 20 hours.

Sentrette: This miniature sensor and its remote alert unit easily fit within a convenient pocket. The sensor unit consists of a flat box with a retractable, multifaceted sensor dome and a transmitter antenna nub. A stick pad on the back allows it to attach firmly to many surfaces using a combination of magnetic plate, chemical adhesive, and micro-hook fasteners. When activated, scanners within the dome monitor sudden changes in heat, sound, and motion in a 20-foot hemisphere. Significant changes trigger the remote alarm unit, setting off a subtle hum to alert the wearer.

The remote easily clips to clothing or gear, or can sit quietly in a pocket until activated. Users can also set the sensor unit itself to emit a shrill siren to indicate detection of change at the site—this audio alarm powers off after one minute. Unlike more sophisticated, static sensor systems, the sentrette does not relay specific information on the nature of the change. It simply alerts the user that some unnatural or environmental change has taken place in the region where he placed the sensor. The sentrette's alarm is triggered by sudden sounds nearby or far away, enemies jogging past or avians fluttering across its field, and temperature changes from creatures wandering too close or natural weather events.

Some who trust the sentrette's capabilities—or

place it in an area with a well-controlled environment—jury rig explosives to the integrated audio alarm. Anyone making a Demolitions check (DC 15) and a Use Device check (DC 20) can reconfigure the siren circuitry to ignite an explosive's fuse, detonating a modified grenade, mining charge, or other explosive or security system. Should something set off the sentrette's alarm, the resulting explosion destroys the sensor unit.

To notice the sentrette, a character must make a Search check (DC 25). To pass without setting off the sensor's alarm, one must make a Hide and Move Silently check, each at DC 25. Certain factors might lower this DC, including use of any technology that jams the sensor's electronics, nullifies sound waves, or masks one's body temperature against the area's ambient temperature.

A microcell in the sensor provides enough energy for 10 hours of continuous use, while one microcell powers the remote alert receiver. The sentrette's alert transmitters can broadcast its alarm to the remote unit up to 10 kilometers away.

Spike mat: The secretive monks of Dubaal designed the spike mat to cover their trails when pursued by enemies. The mat initially appears as a six-inch by six-inch scrap of folded cloth. When the user releases the restraining strap, the cloth springs open into a five-by-five-foot mat with rigid, barbed needles sticking up from one surface. The spiked side of the cloth consists of a photoreflective surface that mimics the general appearance of the ground beneath it, making it difficult to spot even in adequate lighting conditions. Characters must make a Search check (DC 20) to notice the mat. Even if a character does notice the mat, he must make a Reflex save (DC 15) to avoid it if he is charging or running.

The concentration pattern of the needles ensures that anyone stepping on the mat hits at least one. The two-inch spikes penetrate most footwear with natural or synthetic soles worn by Small or larger creatures. Metal soles used in magnetic boots, exoskeletons, and hardsuits simply crush the needles beneath their weight. The spike mat deals 1 point of piercing damage to anyone stepping on it without thick or metallic footwear. The injured foot also halves the victim's speed for one day or until the wound receives treatment with a Heal check (DC 15) or at least 1 point of magical healing. Those injured must immediately stop after stepping on a spike mat; as the victim withdraws his foot, the barbed needles pull the mat up, hindering further movement.

Some users simply release the restraining strap and toss the mat behind them as they flee—the cloth springs open and lands spike-side-up thanks to subtle weights. Others prefer to spend more time cautiously setting the mat as part of an elaborate trap. In these cases the mat sits beyond a tripwire or other device intended to make pursuers stumble and fall onto the needles. Anyone who falls onto the mat receives 1d4 points of piercing damage.

Some of the Dubaal monks smear the spike mat's barbs with various poisonous substances to infect those injured on the needles. The monks distill a venom from the scimitar wasps of their homeworld that weakens pursuers (scimitar wasp venom: Injury DC 17, Initial Damage 1d6 Str, Secondary Damage 2d6 Con, Price 500 cr.). Others employ different poisons or simply douse the barbs with readily available filth. The listed cost reflects a mat with no poison; for mats with chemically enhanced needles, add twice the cost for one dose of poison.

Tackclay: This substance is a versatile tool. It consists of mimetic materials that can change their form and composition. A cheap interface to a datapad allows a character to control the clay. Chips costing 10 credits can be imbedded in tackclay. The chip can change the clay in response to sounds, environment, or a timer. With a receiver, the chip can set the clay in response to a signal.

Tackclay normally has the consistency of modeling

clay. It can take an imprint without sticking. It can become sticky, ranging from slight to very strong adhesion. It can have a hardness up to 8, becoming almost as strong as iron. In the hands of a skilled user, it can be used as tape, handcuffs, or a patchkit. Tackclay may be helpful in situations where equipment is needed, subject to DM approval. A character could make crude climbing gear out of tackclay, for instance, but the bonus gained from these improvised applications should never match those provided by appropriate gear.

The price listed is per pound of clay. The clay can be combined or divided as desired and functions equally well in most environments. Extreme heat will degrade the clay, though it is not flammable. Tackclay has 4 hit points per pound.

Thornhedge seed: The elven biotechnical conglomerate Ysril engineered the thornhedge seed as a rapid-deployment defensive obstacle. The seed itself looks like a half-foot-long gourd the width of a burly forearm. To activate it, the user aligns the seed's length with the axis along which he wants the hedge to grow and presses the activation nub. Drawing from internal nutrient reservoirs, the seed bursts and grows at a phenomenal rate. Within three rounds the seed grows into a thorny hedge five feet deep, five feet high, and 10 feet long. Roots anchor the plant to any available surface; although soil is ideal, the plant's roots find their way into rock, weave around metal fixtures, and even produce a mild adhesive sap to cling to completely flat deck plates. Thornhedges deployed side-by-side interweave their branches and roots where they meet, allowing users to grow a small defensive enclosure with enough seeds.

This passive bioweapon offers a small degree of protection, but also slows pursuers and deters enemies passing through the area. Anyone crouching behind the thornhedge gains three-quarters concealment (with a 30% miss chance). The hedge serves as a heavy obstruction (thick undergrowth) against ground vehicles trying to pass through it; they suffer x1/2 movement penalty and a –4 maneuver penalty when attempting to negotiate the bush. Ysril engineered the thornhedge with fire resistant composition: It won't catch fire if hit by casual weapon blasts but still burns if enemies intentionally set the bush on fire.

The hedge presents a formidable obstacle for personnel. Anyone attempting to pass through the thorny thicket must make a Reflex save (DC 25). Success means the person picks his way through the tangle to the other side with minimal tearing to clothes, gear, and skin. Failure, however, ensnares the character in the twisted thorny branches that catch on every surface. Anyone entangled in the brush on the failed Reflex save takes 1d2 points of damage each round. If they do not make an additional Will save (DC 12) to maintain their composure, they also add their Strength bonus to this damage. Ensnared creatures must make a Reflex save (DC 15) to extricate themselves (or a DC 10 Reflex save if a companion assists them). If this save fails, the entangled character takes damage a second round; the DC for each save also rises by +1 every round he remains stuck in the hedge. Each thornhedge branch has 4 hit points for purposes of hacking through the entanglement, though one must cut at least 5d4 branches to effect a relatively unhindered passage through the hedge.

Elven mercenaries favor passive bioweapons like the thornhedge. They use the seeds to quickly reinforce defensive positions or cover their avenue of retreat. After action, the hedges grow naturally in favorable environments or shrivel up over time without proper nutrients and firm soil. One can obtain the seeds from elven weaponsmiths or those with connections to Ysril.

Vocoder: This device is sometimes surgically implanted, but the more popular version is a thin membrane that adheres to the throat. It requires a nearby microcell, using a short-range port to draw power. A vocoder alters the tone, pitch, timber, and other characteristics of the user's voice. Languages that may be difficult to pronounce can be spoken easily with this device. Vocoders may also be used to disguise a voice. This grants a +10 circumstance on Disguise checks specifically relating to vocal qualities and recognition.

Networking the device to specialized programs on a datapad can greatly increase its capabilities. There are several programs that layer vocal patterns with suggestive resonance, granting a +4 circumstance bonus on skills for which the program is designed. Programs exist for Bluff, Diplomacy, Intimidate, and Perform (when applied to singing or oration). This effect is fairly easy to detect through surveillance equipment or analysis software.

Survival Gear

Antiseptic lamp: This is a simple handheld device that fits easily in the palm. It combines an ultraviolet lamp with a low-grade EMP generator. Swept over a wound, equipment, or food, it acts as a fairly effective antiseptic. It is not advised for use near sensors or exposed circuitry. The UV light has a range of 10 feet, but the antiseptic properties only function at a

range of a few inches. The EM pulse is also limited to a range of one foot.

Use of the lamp can help stop infections and the spread of infectious disease. The antiseptic lamp provides a +4 circumstance bonus on Heal checks to treat infections or infectious diseases.

Aquatic shelter: This shelter is designed for emergency aid. Explorers and military units use aquatic shelters to construct quick undersea bases. When the shelter is activated, a small battery provides power to the unit and small propeller screws. Once under power, the shelter can be easily maneuvered to a suitable foundation point. The base of an aquatic shelter may be up to 10 feet by 10 feet.

The shelter is constructed from a morphing material capable of altering characteristics such as shape, texture, and flexibility. The shape of the basic framework is determined by the shelter's initial programming, though this can be altered with a successful Use Device check (DC 20). Once the shelter has assumed its final shape, the membranous walls and surfaces thicken and harden, becoming a somewhat spongy, tough material. The original frame provides a rigid support structure for the shelter. Round sections of the membrane thin and become translucent, forming windows. Sections that separate under direct pressure become hatches, while openings in the bottom of the shelter can create moon pools. When the shelter is complete, a small integral pump activates and removes the water from the structure. The battery is used to crack oxygen from the seawater, filling the shelter with breathable atmosphere. The entire setup process takes 30 minutes to complete.

The shelter provides warmth and renewable atmosphere for up to four people. In cold waters, the material thickens and provides better insulation. Hatches are flexible, inflated irises that serve as effective airlocks. The shelter is rated to a pressure of up to 500 atmospheres (at standard gravity, that is a sea depth of 300 feet).

Bippers: These foot-long perimeter-security devices can telescope up to 10 feet tall and can be arranged up to 100 feet apart. Using low-intensity lasers and low-light imaging systems, a bipper can detect movement within 10 feet as well as objects crossing between one bipper and the next. While they can register sizes of beings and and general shape and outline, bippers are incapable of visually distinguishing friend and foe.

Bippers can be hooked up to a datapad and monitored. A robot can also be set up to control a bipper perimeter.

These devices can sound or flash an alarm, as desired. They can also set off loud noises, noxious smells, and flashes of light, potentially startling off animals. Those interested in a good night's sleep should set the perimeter fairly wide, set to flash and release mild odors.

Emergency food synthesizer: Space crews throughout the Dragon Empire hate this device. Aboard starships and space stations, most food comes from a food synthesizer of some kind. Synthesizers use engineered organisms to turn power, waste, and air into a variety of nutritional substances. While not particularly appetizing by themselves, these base substances can be mixed, modified, and flavored to provide palatable meals.

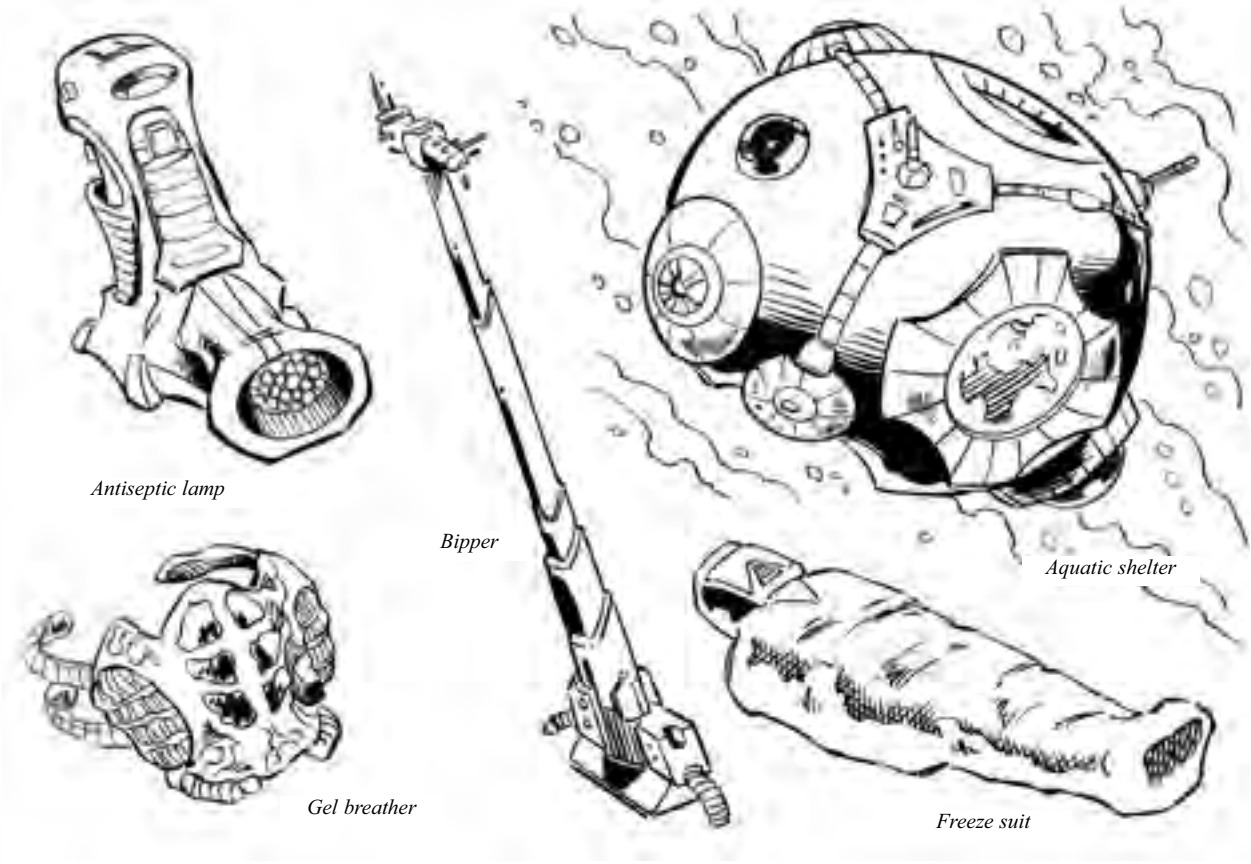
The emergency food synthesizer, however, lacks the refinements that many ship and habitat synthesizers enjoy. The system produces a nutritional substance available in "dry and gritty" and "runny paste" forms. The waste cycling and synthesis process is not perfect: Without supplements, characters using an EFS will begin to suffer nutrient deficiencies. Within two weeks, characters dependent on emergency synthesizers can become seriously ill.

The EFS is powered by a minicell, though it can be connected to larger systems. It serves up to four people at a time. Without water or waste, it can only provide limited sustenance for one character, and nutrient losses occur much faster. An EFS can run indefinitely. A minicell provides sufficient energy for one week of maximum use.

An EFS can also be designed for marine environments. The organic core of these synthesizers is able to supplement waste with plankton and minerals, preventing nutrient loss.

Gel breather: The Dark Edgers of Kalibrig frequently return from their forays into the Dark Zone with piles of gel breathers, supposedly harvested from the mucus of a giant oceanic beast on some mysterious waterworld within the Zone. The blobs of translucent gel initially resemble jellyfish, with an outer, smooth surface on the concave top and a rougher underside covered in tiny cilia. No one is really sure if this organic matter possesses some degree of life, or even sentience, but the gel breather still serves a seemingly benign purpose, helping other beings to function in tainted atmospheres.

A gel breather combines the utility of the artificial gill with the functions of a filter mask. The user simply molds the rough surface to his face, covering the nose and mouth (or other breathing orifices); the minute cilia cling to the skin and form an airtight seal. The wearer can still breathe through the gel's body, though with slightly more effort than normal. The gel breather extracts oxygen from the existing atmosphere, even if contaminated, and purifies it in such a



way that the wearer can breathe normally underwater, in smoke, tear gas, and thin atmospheres. The user is immune to drowning and damage or suffocation due to breathing tainted or hostile atmosphere.

The breather does not protect the user from corrosive effects or other potential hazards of hostile atmospheres. The gel breather cannot support the user in space or other environments with no oxygen content. It does not protect the wearer from depth and decompression hazards. The gel breather works for 200 hours of continuous operation before it wears out.

As one of the more common items retrieved from the Dark Zone—and one that doesn't require additional work by the Edgecrafters of Kalibrig—the gel breather is readily available in most markets bordering that region of space. One can also find them for sale from merchants specializing in gear incorporating exotic materials salvaged from the Dark Zone.

Portable power generator: The PPG is a fusion generator. It splits hydrogen from water or from water vapor in the air as fuel. It is inefficient, but its portability and low maintenance needs are suited for recharging powered armor and light vehicles. It can fully charge the cells used on most powered armors in six hours, assuming either standard atmosphere or small amounts of water. A set of four combat hardsuits could be used for 16 hours and then recharged in an eight-hour rest period.

Powerboots: These devices provide mobility and speed, useful for everything from rescue operations to crossing badlands quickly. They rely on a rigid sole that can change shape as needed. At higher speeds, the sole becomes curved and elastic. Combined with a servo to boost the user forward and robust feedback to keep balance, it adds +5 feet to the wearer's speed. The boots also provide a +4 circumstance bonus on Jump checks.

Radiation shelter: On many planets, radiation is a fairly common environmental hazard. War, poorly maintained power plants, dumping, or natural conditions can all cause severe radiation threats. A radiation shelter can be useful in response to shifting winds or to provide secure sleeping quarters. In space, stellar flares provide another constant threat. Spikes in stellar activity can causes fluxes of electromagnetic activity that send massive streams of hard radiation out into space. In large enough doses, this can cause sterility, cancer, and radiation poisoning.

Whether on the ground or in a habitat, the shelter is fairly basic. It is made of a flexible but tough material and a series of struts. The standard design is a tent

SURVIVAL GEAR

Item	Cost	Weight
Antiseptic lamp	50 cr	1/2 lb.
Aquatic shelter	10,000 cr	500 lb.
Bipper	300 cr	1 lb.
Emergency food synthesizer	800 cr	10 lb.
Gel breather	300 cr	1 lb.
Powerboots	2,000 cr	5 lb.
Portable power generator	500 cr	20 lb.
Radiation shelter	4,000 cr	60 lb.
SeaCell	300 cr	1 lb.
Skychron program	50 cr	—
Strobe beacon	50 cr	—
Quickcrete	2 cr	1 lb.
Vapor still	200 cr	10 lb.
Vulcan gloves	250 cr	3 lb.
Web cage	5,500 cr	15 lb.

about eight feet by eight feet by five feet. The material comes apart along seals. With some ingenuity, shelters can be divided into pieces and combined into larger structures. In any form, the shelter has a series of vents and filters along the top and bottom. Normally, air is sucked from above, filtered, and then moves through the shelter. Vents along the bottom push out air, also removing dust and other airborne contaminants.

Vent systems can be removed and attached to other parts of the shelter, or connected to ventilation systems outside. A temporary shelter or emergency pod can be covered with the radiation shelter material.

Setting up the basic radiation shelter takes four rounds. In a rush, a Use Device skill check can drop the time needed by one round for every 5 points of the check result above DC 10. More complex tasks may take anywhere between 10 and 40 minutes.

The standard, two-person radiation shelter has a normal hardness of 5 and provides 21 points of protection from radiation each round. It uses a minicell, which provides sufficient power for one week of continuous operation. While it provides some warmth and cooling, it is not designed for weather extremes. It has adequate filters for most toxins. Radiation shelters can be sealed but have no integral oxygen supply.

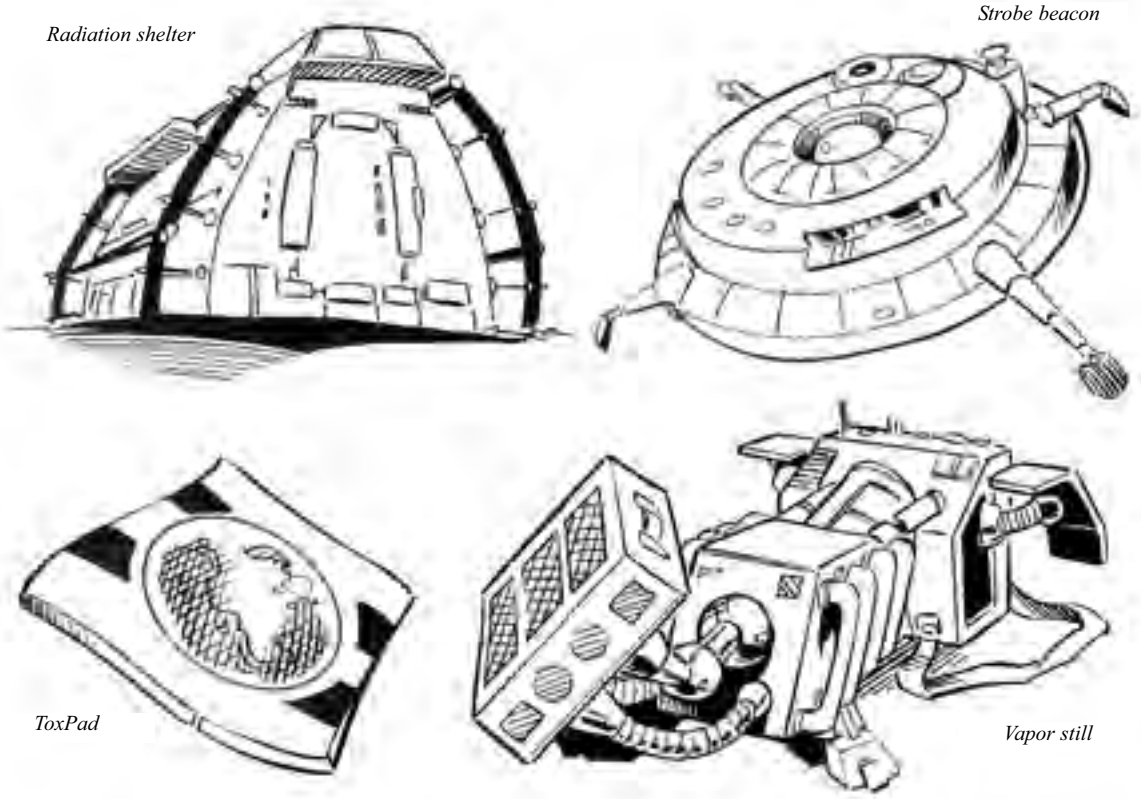
SeaCell: This is a miniaturized fusion generator. It is the size of a minicell and provides similar power. It relies on cellular fusion, which uses small-scale quantum effects to trigger fusion in repeated pulses. An extraction chamber splits hydrogen from water and feeds it through a series of thin capillaries to banks of fusion cells. Each cell absorbs hydrogen, undergoes a pulse of fusion, releases helium, and then repeats the process. The cells are also shielded, minimizing radiation risks. The process is inefficient but provides electricity so long as the system has water.

A seacell can turn a pint of water into as much energy as the output of a standard minicell. It also produces waste heat, a bright signal to infrared sensors. The waste product is hot water saturated with oxygen and helium.

The cell occasionally needs cleaning. Eventually, the cellular components begin to break down, but this only becomes a problem after 625 gallons of water have been processed.

Cellular fusion is only suited for low-power applications, particularly in marine environments. It is less efficient than the portable power generator but more reliable and releases less radiation. Larger versions are available that have the size and power of a heavy cell. Anything larger relies on hot fusion, such as the portable power generator. Ultimately, fusion systems using water fuse hydrogen, limiting their power output. Vehicles and ships use deuterium, which fuses more easily and produces higher power. Fuel plants concentrate the natural deuterium found in water, storing it as heavy water or liquid deuterium.

Skychron program: A useful survival program, this software reads and analyzes the position of the sun, magnetic fields, and local stellar information. It can calculate important information about move-



ments of celestial bodies. The primary use of the skychron program is to calibrate an electronic mapbox. A blind landing on a planet, *teleport* magic, and other effects can throw off a mapbox's inertial compass. With no GPS unit, the mapbox can record the movements of the character but cannot be sure where the original location is.

Skychron is useful for stellar navigation. With accurate images of the stars from the present location, the program can accurately determine the ship's position. This in no way matches the capabilities of an astronav computer. The detail needed by a starcaster is much greater than this program can provide. Still, if the astronav is damaged, this program can come in very handy.

A datapad can use skychron information to determine what the view would be from a planet anywhere in the Empire. Models can be run forward and backward in time, shifting stellar positions accordingly. Skychron has basic information on most imperial planets, though this information is only as good as expeditions and military security allow.

Strobe beacon: This personal rescue device is slightly larger than the minicell that powers it. The strobe beacon easily fits in a pocket and slips into most emergency survival packs. When activated, it emits a bright burst of light once every three seconds. Others can spot the light from two kilometers away during the day or five kilometers away at night, depending on atmospheric conditions.

A chromatically adjustable lens over the strobe allows users to change the light color from bright white to red, green, yellow, or blue to correspond with common emergency and communication codes (see sidebar). The beacon also sends a burst transmission telemetry signal on standard rescue frequencies, a simple radio pulse retrieval parties can follow with remote sensor equipment (the transmission has a range of 100 kilometers). A pattern within the transmission indicates the color of the strobe in case poor visual conditions obscure the beacon.

Users can disable the transmission feature for other purposes: rigging several strobes to outline a temporary landing area, marking a target for incoming starfighters, or creating a diversion during combat. Short spikes fold out from the sides and base so users can firmly anchor it into soft surfaces or the ground. The magnetic base disk also allows it to adhere upright to metallic surfaces.

At night, the strobe's intense bursts of light provide irregular illumination to the immediate area. Anyone within 50 feet of the strobe suffers a –2 circumstance

RESCUE LANDING COLORS

Colored beacons and lights represent numerous situations and conditions based on context, terrain, local custom, and other mission considerations. The following colors and their signal definitions pertain to common search and rescue activities. Personnel involved in other missions use varying color schemes to indicate different situations, and more clandestine activities purposefully use coded formats for operations.

Green: All Clear. This signal indicates that a landing area around the beacon is cleared to support landing craft, is safe from hazards, and is secured from any hostile forces operating in the area.

White: Urgent Rescue. The most common color used in the strobe beacon's survival function indicates the location of personnel to rescue craft. It communicates the need for timely rescue, often as a result of critically injured personnel or dire life-support conditions.

Red: Hazard. Strobes flashing red mark the position of parties seeking rescue from within terrain extremely hazardous to incoming craft, including hot zones under direct enemy fire.

Yellow: Proceed with Caution. Yellow strobes tell incoming vessels to land with caution. They often mark areas with slight hazards any perceptive pilot can identify and avoid by visual or electronic scanning. Combat units use this signal to indicate that their extraction position is endangered but not fully engaged by hostile forces.

Blue: Water Nearby. A beacon flashing blue indicates aquatic terrain features nearby that might affect landing craft, or designates that the strobe and survivors float on a vessel or rescue raft within a larger body of water.

penalty on all attack rolls and vision-related checks, even if adequate lighting exists. This penalty affects those with darkvision or other means of enhancing their sight in dim conditions.

Some scoundrels use the beacon as a diversion for tight situations in poorly lit, close quarters. They conceal the beacon in their hand, then flash it once (while averting their eyes) to temporarily blind and startle their unsuspecting victims. Anyone looking in the strobe's direction must make a Reflex save (DC 15) to look away (the user gains a +10 circumstance bonus to this save since he controls the strobe). Those failing the save are blinded for 1d2 rounds (light-sensitive creatures suffer these effects for twice the normal duration). Any characters making the save quickly avert their eyes and avoid the effects of blindness.

The beacon's minicell provides enough power for 60 hours of continual use.

Quickcrete: This gel is easy to apply and spread. When subjected to a precise electrical signal, it hardens within a second into a solid substance. It has hardness 10 with 15 hit points per inch of thickness. A pound contains about six cubic inches of this material. With an applicator (10 cr) it can be released as a thin liquid or foam, mixing with other materials to add bulk. Quickcrete can be doubled in volume as a foam, having hardness 8 and 8 hit points per inch of thickness. It can be doubled by mixing in dirt or rocks without noticeably changing its properties. It is waterproof and forms just as readily in a vacuum or underwater.

Quickcrete has a second activation signal. If this signal is used, the quickcrete can be dissolved later using a third signal and spraying on specific solvents. This allows quickcrete to be used temporarily, such as for a quick airtight seal. This removal process reduces the quickcrete's hit points by 5 per round. When an inch of material is removed, another application is needed to dissolve it further.

Vapor still: A vapor still condences water from the air. It is limited by humidity. In thick, humid air, the still can extract enough potable water each day to hydrate four individuals. In drier, cooler environments, it may only be sufficient for 1–3 individuals per day. Arid climates with some moisture can possibly support a single individual. In deserts or in subzero weather, the still is unlikely to support even one but might slow down dehydration.

The device is a small pack that unfolds when used. Fully deployed, the still stands on a set of long anchoring legs with a fan of filaments spread out above it. The fan swivels to keep the edge into the wind. Small fibers draw moisture as the air moves across the fan. The device also incorporates solar cells to augment the microcell that powers it. Under reasonably sunny conditions, the still can be used continuously for 48 hours. Larger power supplies or constant daily bright sunlight can keep it going indefinitely.

Vulcan gloves: Commonly used in manufacturing and research, these look like regular rubber gloves, coming up to the elbow. They provide 100 points of protection against acid, cold, electricity, and fire damage. Nails or sharp edges can cut through a glove easily, rendering them useless. The material tightens to make a good fit, and then expands slightly. It has a

spongy feel, but there is almost perfect tactile feedback. The gloves allow wearers to dunk a hand into molten lava and then immerse it in liquid nitrogen, with no ill effects. The resistance to these extreme conditions is limited to a relatively short duration, depending on the extremes of heat, cold, electrical current, or acidity. A glove changes its color, fanding to a mottled gray, to warn of degradation in its protective capabilities.

Web cage: This system is favored by explorers, rangers, and adventurers who depend on protection from beasts and monsters in the wilderness. The system is based on the same principles as starship shield technology, though it is much less complex and requires much less energy.

The system is composed of a dozen emitter units and a handheld remote control device. When activated, the emitters create a powerful electrical field in a hemispherical grid. Any creature coming in contact with the grid suffers 6d6 points of electrical damage. The grid is quite strong and has a Break DC of 30 for the purposes of attempts to break through it.

CHAPTER TWO

WEAPONS AND ARMOR

MELEE WEAPONS

Charge mace: This light mace is a simple weapon and looks like a slender baton with a cluster of knobby contacts at the end. The weapon uses railgun technology to deliver extreme kinetic force to a target. The weapon is hollow, with a cylindrical channel surrounded by a magnetic coil running along its length. A series of superdense metal spheres are placed throughout this channel. When the contacts at the end of the mace strike the target, the spheres are released, slamming into each other in sequence and delivering significant kinetic energy to the contact point. The weapon incorporates efficient solar chargers, and a single minicell is good for the life of the weapon.

Monofilament axe: The design of this martial weapon is very similar to a conventional battleaxe. Instead of a blade, however, a pair of support struts extend from either side of the shaft. Extremely strong and durable monofilament wires are strecthed between the support struts and serve as the weapon's blades. The monofilament wire is extremely sharp, slicing through living flesh and inorganic material with equal ease. The weapon reduces the target's armor or natural armor bonuses by 2 and ignores the first 5 points of an object's hardness. Dwarven urgrosh variants of this weapon are available at three times the listed cost and twice the listed weight.

Power pick: Originally engineered by the barbaric dwarves who mine the Dead Moons of Zygrad, the power pick appears as an ornamented and stylized heavy pick. Few who realize its true nature employ it as simple mining pick—it is an elite, martial weapon designed exclusively for combat.

The pick functions as a standard weapon until it pierces an opponent. Motion discriminators in the haft sense when the pick strikes, then activate a percussion ram in the cylindrical counterweight behind the pick blade. On the next round the ram forces sharp spikes or spines to extend from the central blade, ripping through flesh and firmly anchoring the weapon into the victim. This deals an automatic 1d6 points of piercing damage plus the wielder's Str modifier every round until it is removed. The wielder must use a move-equivalent action to keep the weapon anchored in the target. The target can remove the weapon by making a successful opposed melee attack roll against the wielder of the power pick. This requires a standard action.

Retrieving the weapon for immediate use is nearly impossible without deactivating the flared pick. A decorative switch on the pick's handle resets the percussion ram, slowly drawing it back into the counterweight and retracting the spikes into the blade. Unfortunately this process requires a standard action.

A minicell in the handle provides enough power for 20 uses of the pick's flared blade function. Should the cell run down, the bearer can still use the pick in its unenhanced melee role.

Anyone spotted carrying power picks crafted by the dwarves of Zygrad immediately falls under suspicion from the authorities as allies of those savages, or comes to the attention of the barbaric dwarves themselves as enemies willing to steal and openly use their technology. Authentic Zygrad dwarven power picks are masterwork weapons and gain a +1 bonus to attack rolls; they are also unavailable for sale on most markets. Unscrupulous weaponsmiths throughout the galaxy have modified the design and created more plain-looking power picks; one can find these picks

among merchants specializing in illegal weapons. Using the weapon's special features openly marks the bearer as a merciless brute who deserves similarly ruthless treatment.

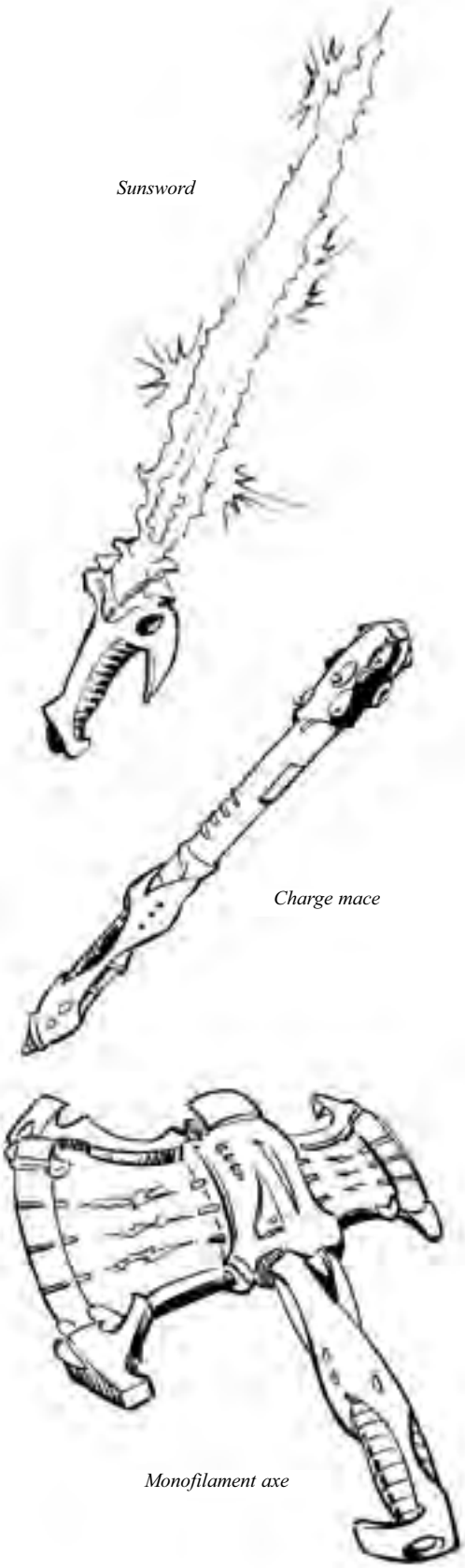
Shatter glove: The shatter glove combines the protective features of an armored gauntlet with the destructive power of a high-intensity, modulated sonic disruptor. The gauntlet laces up the wearer's forearm to reinforce its conventional punch, but the glove's real danger lurks beneath the palm and finger pads. These function as tympanic conductors for a short-range sonic blast modulator. When activated, rapidly fluctuating sonic waves disassemble molecular bonds and weaken items within the gauntlet's grasp. Metal goes brittle, glass shatters, electronic devices short circuit, and flesh simply disassembles itself into a gooey mess. The sonic field's short range limits its effectiveness to melee encounters.

The wearer need only make a successful melee attack roll to activate the glove. The weapon deals 1d10 points of sonic damage in addition to the wielder's normal unarmed damage. This damage is not multiplied if the attacker scores a critical hit.

Catching an opponent's weapon in the gauntlet provokes an attack of opportunity, unless the attacker has the Improved Disarm feat or a similar ability. If the glove wearer then wins an opposed attack roll against her adversary, she inflicts the shatter glove's normal damage against the grasped weapon. The gauntlet's modulated, intense disruptor field negates any hardness of 15 and lower, dealing damage directly to an object's hit points. Magic items gain a Fortitude save (DC 15) for half damage. The glove also adds its damage to Strength checks to break or burst items. Two microcells mounted in the gauntlet's forearm provide enough power for 25 hits with the sonic disruptor. Failed attacks do not drain the glove's charges.

The shatter glove is anything but subtle. The sonic blast modulator emits a crackling boom when activated. Its effects frequently generate harsh noise, from the shrieks of shattering blades to the screams of those who experience the glove's extremely gruesome application against flesh. Many planetary governments outlaw shatter gloves, though they easily pass as traditional gauntlets and many come covered with fine decoration to further mask their true purpose. Many civilized soldiers disdain this ignominious weapon, but orc commanders of mercenary companies and shipboard security personnel favor the shock glove for its hidden advantage and its effectiveness in close combat.

Shock palm: A one-use concealed weapon, the shock palm fits over the user's hand and can



Sunsword

Charge mace

Monofilament axe

SIMPLE MELEE WEAPONS

Weapon	Cost	Damage	Critical	Range Increment	Weight	Type
Tiny						
Shatter glove	1,000 cr	1d10	—	—	1 lb.	Sonic
Shock palm:	150 cr	3d8*	—	—	1 lb.	Electricity
Small						
Charge mace	650 cr	2d8	x2	—	8 lb.	Bludgeoning

MARTIAL MELEE WEAPONS

Medium-size						
Monofilament axe	1,250 cr	2d10	x3	—	4 lb.	Slashing
Power pick	200 cr	1d6*	x4	—	7 lb.	Piercing
Sunsword	1,500 cr	2d6	19–20/x2	—	3 lb.	Fire

remained well concealed beneath an ordinary cloth glove. Con artists, security operatives, thieves, and deep-cover spies use it as a last-ditch personal defense device, or to disable unsuspecting victims. Although not openly available, those with contacts in the underworld can easily purchase these devices. Anyone caught wearing or using them, however, immediately falls under suspicion of law enforcement authorities, who naturally assume a person employing a concealed weapon of this sort must engage in illegal activities.

The shock palm consists of a quarter-inch-thick shock plate attached to the palm with a flexible strap over the back of the hand. An insulator pad protects the wearer's hand from residual electricity. The user activates it by striking her palm hard against the intended victim. Trigger panels press together and complete the circuit to deliver a concentrated burst of electricity. In most cases the user must make a successful unarmed attack against a target to strike with her palm and deliver the electrical charge.

On a successful attack the target takes normal unarmed strike damage and must make a Fortitude saving throw (DC 15) or be stunned for 1 round from the electrical burst (resistances or immunities to electricity damage apply). Monks with the Technical Proficiency feat can use a shock palm to enhance their unarmed strikes. The DC to resist the monk's stunning attack is increased by 1, and victims who fail their saving throws are stunned for 2 rounds. The shock palm's electrical charge is strong enough to short circuit and disable hand-size electronic devices, including datapads, personal communicators, hand-held scanners, and electronic lock devices.

While wearing the shock palm, the user retains unencumbered use of her fingers, but must take care not to grasp anything hard against her palm lest she inadvertently activate the shock plate. The trigger panels can withstand the pressure of a firm handshake without going off. The user must take care not to wear the shock palm beneath an insulated glove that might weaken or negate delivery of the shock palm's electrical charge. A integral microcell provides enough power for one stunning burst of electricity. Although the wearer cannot replace the microcell without tearing apart the shock palm, she can use the integrated transformer, retractable wire, and plug to recharge it from most power ports. Recharge takes one hour.

Sunsword: The clergy of the Father and the Warrior—including those who serve SOLAR and the Celestial Guard—carefully guard the secrets of this legendary weapon's manufacture. The sunsword is a short cylinder with a molded handgrip designed along the same principles as a conventional sword hilt. When activated, a column of superheated plasma extends from the hilt to a length of three or four feet. The plasma is contained and focused by some unknown means. Most believe that magic is necessary to contain the plasma, but a few scholars have suggested that the fire could be created and contained through some exotic alchemical technology. The clerics and paladins who know the sunsword's secrets claim that the weapon is infused with the divine spark of creation itself, and that its flame is drawn from the fusion furnace of the stars. The weapon ignores the first 10 points of armor bonus or natural armor bonus

and hardess of any target it strikes. The sunsword sheds light in a 60-ft. radius. It also sheds warmth, though it does not burn unless one actually makes contact with the plasma blade. Sunswords are extremely rare and are typically not available on open markets. The cost listed is a suggested price for authorized purchases from the sects of the Father and Warrior.

Personal Firearms

Several new weapon types are introduced in this section. Individual weapons are listed separately under each category.

Gyrojets

Gyrojet weapons are a somewhat antiquated technology that has mostly been replaced with energy weapons in the Dragon Empire. Gyrojets fire miniature, self-propelled rockets instead of metal slugs or energy pulses. A gyrojet round is a small rocket with canted vents. As it launches from the barrel, the vents cause the rocket to spin, stabilizing the rocket and improving range and accuracy. Because the rockets are self-propelled, gyrojet weapons typically have better range than conventional slug throwers and even many light energy weapons. Gyrojet rockets deal half fire damage and half piercing damage.

Railguns

These advanced weapons use powerful magnetic fields to accelerate metal slugs through the barrel. They are capable of both very high muzzle velocities and extreme rates of fire.

Handguns

Espionage needler: Needler pistols have rarely proven effective in open combat, but serve as useful tools for short-range, concealed work. One-shot needlers designed for espionage work frequently come in compact designs consisting of a short delivery tube, parallel gas reservoir, and a square, flat trigger assembly. One can strap the weapon to a hand or wrist or conceal it in a spring holster. Some operatives conceal them in sleeves or bracers.

Engineered to deliver a single, accurate shot at a short-range target, espionage needlers forego magazines of multiple slivers and noisy rapid-shot actions. The weapon relies on stealth to allow the user to approach a target, ejects the needle with a quiet com-

Railgun pistol

Gyrojet pistol

Espionage needler

Hellfire revolver

SIMPLE RANGED WEAPONS

Weapon	Cost	Damage	Critical	Range Increment	Weight	Type
Diminutive						
Espionage needler	500 cr	1d2*	x3	5 ft.	—	Piercing
Firespray	250 cr	2d4*	x4	10 ft.*	1/2 lb.	Fire
Tiny						
Holdout gyrojet	200 cr	1d12	x2	200 ft.	1/2 lb.	*
Magazine (3)	5 cr	—	—	—	—	—
Small						
Gyrojet pistol	400 cr	2d6	x2	300 ft.	2 lb.	*
Magazine (10)	20 cr	—	—	—	1 lb.	—
Railgun pistol	600 cr	2d8	x3	150 ft.	6 lb.	Piercing
Magazine (20)	30 cr	—	—	—	1/2 lb.	—
Medium-size						
Blunderblast	500 cr	3d10/2d10/1d10	x2	40 ft.	13 lb.	Piercing
Gyrojet carbine	500 cr	2d10	x2	400 ft.	6 lb.	*
Magazine (20)	50 cr	—	—	—	2 lb.	—
Railgun carbine	700 cr	2d12	x3	200 ft.	8 lb.	Piercing
Magazine (20)	30 cr	—	—	—	1 lb.	—
Large						
Gyrojet rifle	700 cr	3d10	x2	400 ft.	8 lb.	*
Magazine (20)	100 cr	—	—	—	2 lb.	—
Railgun rifle	900 cr	3d12	x3	250 ft.	10 lb.	Piercing
Magazine (30)	40 cr	—	—	—	1 lb.	—

pressed-gas discharge system, and damages the subject with a chemically enhanced sliver. Assuming the target realizes he's hit, he has little chance to spot his attacker in a crowd.

Given the needle's deadly contents, the trigger was intentionally designed with less sensitivity than conventional weapons. To fire, the user must deliberately use two fingers from an opposing hand, one to hold down the safety switch, the other to trigger the weapon. This is often done in an unassuming manner: adjusting one's sleeve, operating a hand-held device, pulling on a glove. Reloading an espionage needler takes a full-round action, not including the time required to remove the weapon from its concealed location. Although it doesn't have the capacity to use clips of sliver rounds, the needler comes with a separate metal case containing three needles treated with the same chemical compound.

Unlike the more aerodynamically engineered ammunition for other needler guns, the slivers for this espionage weapon are shorter, thinner, and unbarbed. They're designed for high-velocity, short-range delivery. Slivers typically pierce the target's skin, deliver their poison, and then fall off from the subdermal pressure when the target tenses his skin in reaction to the hit. Although effective at penetrating most skin types and light clothing, the needler has difficulty piercing armor: double the target's armor bonus and natural armor bonus when determining attack rolls against him using an espionage needler. The weapon must inflict damage on the subject to deliver its poison. If damage reduction reduces the damage to 0, the poison has no effect on the target.

Those working in intelligence circles have ready access to concealed, mission-specific weapons like espionage needlers. In open society, however, those

NEEDLER POISONS

The slivers fired by needler pistols contain tiny chambers and inertial plunger systems that efficiently deliver chemical substances when they pierce a target. The poisons below represent the more common of those used in espionage needlers. Standard poisons from the DMG or other sources may be used as well.

Poison	Type	Initial Damage	Secondary Damage	Price**
Kjanoth bile	Injury DC 10	1d4 Dex	1d6 Wis	200 cr.
Zygrad oil	Injury DC 10	1d4 Str	1d6 Con	300 cr.
Broadenbane	Injury DC 12	1 Int	1d8 Int	250 cr.
Spivven slime	Injury DC 15	0	Unconsciousness	350 cr.
Sithra extract	Injury DC 15	1d6 Wis	Paralysis	650 cr.
Scimitar wasp venom	Injury DC 17	1d6 Str	2d6 Con	500 cr.
Rendenhell	Injury DC 15	2d10 hp	1d4 Con*	2,200 cr.

** The price listed reflects the cost of three espionage needles containing the particular type of poison.

Not all needles carry chemicals to impair or harm targets. Some slivers come specially designed to deliver tagging devices directly into the subject's system, such as the nano-tracker.

caught carrying or using such covert devices fall under the suspicion of authorities. The average citizen seeking an espionage needler would have to cultivate contacts within the intelligence community, have access to a facility used by operatives, or heavily bribe someone with the proper connections before obtaining one and its specialized ammunition.

Firespray: Firespray offers personal protection in an easily concealed package. Slightly larger than a minicell, this one-shot personal defense weapon delivers a single burst of flame aimed at an unsuspecting opponent. When threatened, the user presses the arming disk at one end, priming the igniter at the other end and sensitizing the trigger coils around the central chemical reservoir. Pointing the other end at the victim and squeezing the weapon's body discharges a conical jet of flame up to 10 feet from the tip. The user must still make a successful attack roll. A hit deals 2d4 points of damage and blinds the target for 1d3 rounds. A Fortitude save (DC 15) negates the blindness.

Although the firespray's limited range makes it effective only at distances appropriate for melee combat, the user applies her Dexterity modifier to all attack rolls with this weapon.

One disarms an unused firespray cannister simply by pressing the arming disk a second time. The weapon contains enough chemical accelerants in the reservoir for only one blast, and refills are not available.

Firespray is a popular personal defense item in urban settings on worlds with lax restrictions on concealed weaponry. Often the mere threat of firespray deters would-be thieves and petty thugs. Merchants frequently sell firespray with concealment packaging to make them appear as makeup, perfume, a minicell, or any other cylindrical product.

Gyrojet pistol: A semiautomatic gyrojet weapon, this pistol is popular due to a combination of good damage and range. The 10 round magazine is pricey compared to other weapons, but the weapon itself, being little more than a launch platform, is cheap.

Hellfire revolver: This is a strange weapon found in some of the outlying regions of the Empire. There are rumors of vigilante gangs in these regions carrying such weapons as a status symbol. Revolvers are rare, as the frequent need to reload makes them less attractive than semiautomatics. The unusually high power and cost of a hellfire round makes revolvers an appropriate design. A hellfire revolver has the profile of a short shotgun and is fired with both hands. Its revolving cylinder has room for four rounds. The fat, scarlet-marked rounds meant for this weapon are quite distinctive and expensive.

Holdout gyrojet: This is little more than a small launch tube and receiver for a three-round gyrojet magazine. Holdout gyrojets are more accurate over range than other holdout weapons, though they need to be reloaded after only three shots.

Rail pistol: Given its modest barrel length, this weapon is at the low end of useful railgun technology. It is a semiautomatic long pistol. Though the rails are rather short, the weapon is still capable of firing projectiles at greater speeds than standard chemical

MARTIAL RANGED WEAPONS

Weapon	Cost	Damage	Critical	Range Increment	Weight	Type
Medium-size						
Hellfire revolver	1,350 cr	3	x2	150 ft.	7 lb.	Radiation
Magazine (4)	100 cr	—	—	—	1/4 lb.	—
Large						
Assault railgun	1,500 cr	3d12	x3	250 ft.	14 lb.	Piercing
Magazine (50)	50 cr	—	—	—	1 lb.	—
Launch pack	10,000 cr	*	*	300 ft.	18 lb.	*
Huge						
ASW	2,275 cr	3d6	x3	400 ft.	30 lb.	Piercing
Magazine (100)	75 cr	—	—	—	5 lb.	—
Laser minigun	2,500 cr	3d10	x2	200 ft.	25 lb.	Fire
Magazine (75)	50 cr	—	—	—	—	—
Sniper cannon	1,800 cr	3d12	x3	500 ft.	30 lb.	Piercing
Magazine (12)	30 cr	—	—	—	—	—
Rail cannon	4,000 cr	4d12	x3	500 ft.	60 lb.	Piercing
Magazine (15)	100 cr	—	—	—	5 lb.	—

firearms. A rail pistol magazine holds 20 rounds and sufficient charge for 20 shots.

LONGARMS

Assault railgun: The assault railgun is a military-grade automatic rifle capable of firing five-round bursts. It is a popular weapon with ground-based infantries. An assault railgun magazine holds 50 rounds and a minicell provides sufficient energy for 500 shots.

Blunderblast: A descendant of black-powder shotguns, the blunderblast combines the force of a channeled explosion with the power of shrapnel. A shortened, smoothbore barrel—flared outward at the muzzle—sits atop a short stock with handgrip, trigger, and guard. A propellant cartridge slips into the handle and feeds into the main chamber. A small trap catch in the barrel keeps the shrapnel in place after loading. When the user triggers the weapon, the trap is released a millisecond before the propellant cartridge ignites and violently discharges material from the barrel.

The blunderblast gains a +2 circumstance bonus on attack rolls and deals 3d10 points of damage to a target in its first range increment. The attack bonus decreases to +1 and the damage drops to 2d10 against a target within the second range increment. At three range increments or more, the weapon gains no attack bonus and deals 1d10 points of damage. Since it requires significant energy to fully discharge everything from the flared barrel, the blunderblast only gets 30 shots out of its propellant cartridge.

The blunderblast uses shrapnel packs available in plastic pouches that clip to belts and bandoliers; they cost two credits each and take a move-equivalent action to load. The weapon can also use improvised ammunition: small metallic parts, dry garbage, recovered shrapnel, broken personal equipment, even rocks gathered from the surroundings. Such makeshift ammunition takes a full-round action to load, though it still inflicts the standard amount of damage for the blunderblast. A blunderblast firing improvised ammunition does not gain an attack bonus.

Volatile materials (ammunition for other weapons, power cells, mini-grenades) loaded into the blunderblast explode upon discharge, dealing 3d10 damage to the wielder and 2d10 damage to anyone within 10 feet of him. This explosion also destroys the weapon.

The weapon is anything but silent. Discharge has all the subtlety of an exploding grenade. Depending on the ammunition used, it may leave an unpleasant burned chemical odor or a haze of foul-smelling, toxic smoke in the air.

The weapon maintains a crude reputation. The orc raider bands of the Galinak Reaches, who spend much of their time fighting in close quarters, nicknamed the weapon "The Beast" for its power and savagery. Boarding parties and starship defenders use the blunderblast in hostile actions since the shot has a short effective range but proves highly efficient at cutting down personnel.

Gyrojet carbine: The gyrojet carbine is a lighter, more compact version of the gyrojet rifle. A gyrojet carbine magazine holds 20 gyrojet rockets.

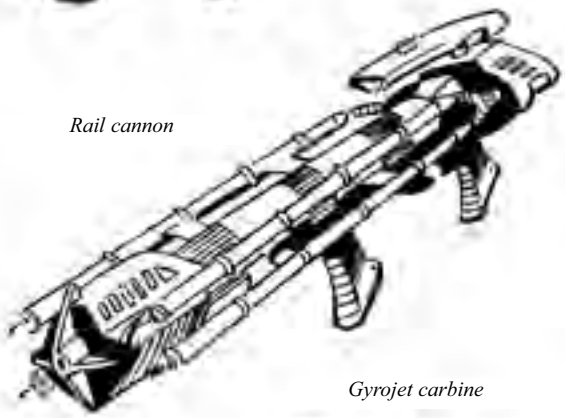
Gyrojet rifle: This semiautomatic gyrojet weapon is popular among small militaries that cannot afford to equip their troops with energy weapons. It is a portable and cheap alternative to a rocket launcher. Though its use against vehicles or groups of targets is limited, it allows good projection of force from a safe distance. A gyrojet rifle magazine holds 20 gyrojet rockets.

Railgun carbine: This semiautomatic railgun has a long profile, allowing for good acceleration of rounds. It is lighter and more compact than a railgun rifle, making the carbine attractive for light infantry. The long barrel allows the use of less powerful capacitors than either the rifle or pistol, helping on cost and maintenance. A railgun carbine magazine holds 20 rounds and sufficient charge for 20 shots.

Railgun rifle: A semiautomatic railgun seen in both civilian and military use, particularly in hunting and special ops. Less noise and greater accuracy than chemical rifles make it a popular choice. A railgun rifle magazine holds 30 rounds and sufficient charge for 30 shots.

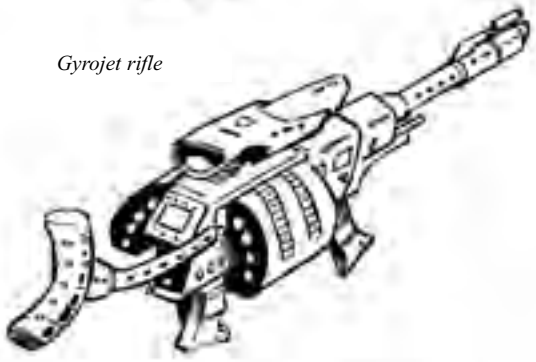
Blunderblast

Rail cannon



Gyrojet carbine

Gyrojet rifle

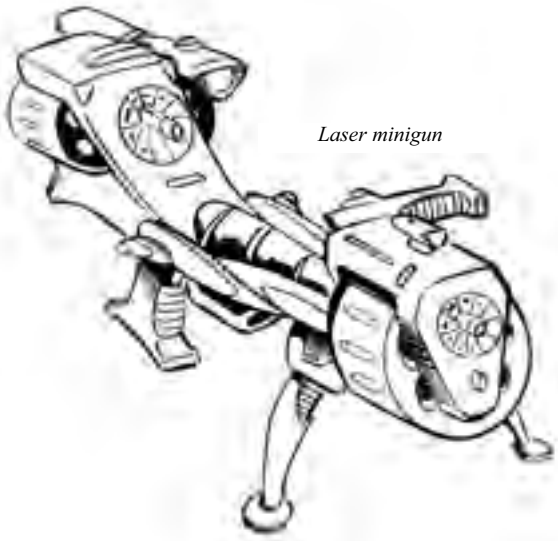


Assault railgun

Heavy Weapons

Automated Support Weapon: Known more commonly as the "panic pack" among mercenary grunts, the ASW serves as near-instant heavy fire support for many infantry units. The weapon isn't necessarily effective at wiping out opposition, but is intended more to intimidate the enemy with a withering curtain of automatic fire in an instant response to sudden attack. It consists of a computer automated heavy machine gun mounted on a backpack harness featuring a pop-up tripod assembly.

The soldier assigned to carry the weapon on his



Laser minigun

Launch pack

Sniper cannon

back is frequently called the "lug." He carries a little gear on his belt but reserves most of his strength for the ASW. When the squad encounters sudden resistance and soldiers fall prone and take cover, the lug falls onto his belly and activates a switch on the pack's belt clip. The tripod assembly pops up, bringing the heavy machine gun into a prime position above the soldier to lay down suppressive fire. Each time the lug activates the gun, it fires suppressive fire in a computer-randomized pattern. The designers intended the ASW to initially return fire and potentially tear up an enemy when the squad was least prepared to retaliate.

The weapon's customized magazine has 120 rounds, enough ammunition to support several rounds of suppressive fire under power of one propellant cartridge. Refer to the *Starfarer's Handbook*, page 130, for the game mechanics of suppressive fire. The wearer makes an attack roll with a –8 penalty: –4 for suppressive fire and –4 for essentially shooting blind.

The backpack tripod assembly allows one Medium-size person to carry the Huge weapon and deploy it effectively in combat. The soldier essentially becomes part of the fire platform for the cannon. With the weapon mounted on his back, he cannot reload it nor can he undertake any other action other than lying prone on the ground while firing the cannon. When the magazine empties, the tripod assembly retracts and the lug can get up on his own—with the assembly extended, the soldier cannot rise on his own.

The tripod assembly and weapon requires two minutes to strap on, but comes with a fast-release harness, allowing the bearer to shed the weapon and tripod mount with a standard action. One cannot wear both the ASW and anything more bulky and protective than light armor.

Units operating in Outlands areas sometimes mount the ASW on Large four-legged creatures as rearward fire support, in which case the lug can move forward as if appropriately encumbered, all while the weapon lays down a withering curtain of suppressive fire with the usual penalties.

The cost listed includes one 200-shot propellant cartridge and the modified 120-round magazine. The ASW is bulky and imposes a –4 armor check penalty on the wielder.

Laser minigun: This devastating weapon is essentially an oversized assault laser that uses multiple rotating barrels to sustain an extreme rate of fire. The laser minigun deals damage as an assault laser, but it can fire up to five shots with a single burst. An oversize magazine offers an improved sustained rate of

fire. The weapon can only be used effectively by a Medium-size character if it is mounted or braced using the integral bipod assembly. Unlike most Huge weapons, it can also be mounted on an intertial harness.

Launch pack: This is a multishot rocket launcher shoulder mounted on a harness that a Medium-size solider can wear on the battlefield. The launch module has a capacity of five rockets, and it can fire any of the rockets listed in the core rules or this book. If the launch pack is linked to a heads-up display, a soldier can fire one rocket per round as a free action. If the character is using another weapon in combat, he must select one target for the round and all attacks from both weapons must be directed at that target. A character using a launch pack suffers a –1 armor check penalty for each rocket loaded in the module, unless the system is mounted on powered armor. A fully loaded launch pack imposes a –5 armor check penalty, but this penalty drops by 1 for each rocket that is fired.

Sniper cannon: This is a massive single-shot rifle used by military snipers in support roles. The weapon fires large-caliber rounds that are only slightly smaller than autocannon shells, and they are powerful enough to punch through walls, vehicles, and other obstructions. These weapons are especially effective in their specialized roles when loading non-standard ammunition, such as armor-piercing and explosive rounds.

Grenadelike Weapons

Atmosphere eater: Orc raiders of the Galinak Reaches like these incendiary devices for their ability to annihilate all atmosphere and organic matter in an enclosed area. They prove ideal for clearing sections of starship corridors, cabins, and control areas without inflicting too much damage to bulkheads or breaching the pressurized hull.

An atmosphere eater—shortened to "eater" by the orcs—looks like an ordinary grenade. To distinguish it from similarly shaped ordnance, orcs often paint horizontal red stripes over its surface, or decorate it with symbols representing fire. It operates on a four-second-delay fuse that activates when one releases a handle-catch and tosses it. The fuse ignites a highly illegal molecular accelerant that burns through most organic and atmospheric matter within a small area. The chain reaction initially detonates the grenade's

GRENADELIKE WEAPONS

Weapon	Cost	Damage	Blast Radius	Weight	Type	Guidance
Grenade						
Atmosphere eater	500 cr	4d6*	20 ft.	1 lb.	Fire*	—
Blinding	100 cr	*	20 ft.	1 lb.	*	—
Dispersal mine	200 cr	3d6*	5 ft.*	1 lb.	*	—
Hellfire	300 cr	5	40 ft.	1 lb.	Radiation	—
Knuckleduster	100 cr	1/3d6	10 ft.	1/2 lb.	Electricity	—
Screamer	100 cr	*	20 ft.	1 lb.	*	—
Standard EMP	150 cr	1d6/8d6	20 ft.	1 lb.	Electricity	—
Tangleweb	200 cr.	*	5 ft.	1 lb.	*	
Blinding post	500 cr	*	75 ft.	10 lb.	*	—
Microcell (50)	10 cr					
Explosive-tipped arrow	60 cr	1d8*	—	3 lb.	Piercing	—
Missile						
AA-EMP	1,200 cr	1d10/10d10	10 ft.	15 lb.	*	25
EMP	1,000 cr	1d10/13d10	40 ft.	10 lb.	*	20
FAE	2,000 cr	3d10	80 ft.	7 lb.	Fire	20
FOE	2,000 cr	3d10	80 ft.	10 lb.	Fire	20
Hellfire	5,000 cr	6d10/10	80 ft.	7 lb.	*	20
Laser	500 cr	1d10/7d10	10 ft.	10 lb.	*	20
Maser	750 cr	1d10/7d10	10 ft.	10 lb.	*	20
Multiple warhead	*	*	*	*	*	*
Rocket						
EMP	500 cr	2d8/8d10	40 ft.	5 lb.	*	—
Hellfire	2,500 cr	4d10/8	60 ft.	4 lb.	*	—
Smudgepot	150 cr	*	50 ft.	5 lb.	*	—
Torpedo						
EMP	1,200 cr	4d10/4d10x5	10 ft.	20 lb.	*	25
Hellfire	8,000 cr	6d10/10	10 ft.	25 lb.	*	25

flimsy metal casing, but quickly spreads to engulf everything within a 20-foot radius in molecularly disruptive flame. The fireball lasts for 3 rounds as the incendiary corrosive reaction tears molecules apart and uses the resulting energy released to disrupt more molecular bonds.

Anyone caught within the blast radius suffers 4d6 points of damage each round until they stumble out of the fire cloud or the reaction burns itself out. Combustible materials catch fire (see Catching on Fire in the DMG).

Immersing oneself in water does not stop the reaction, as the liquid consists of elements commonly found in the very atmospheres the bomb was designed to incinerate. (Rolling around in dirt or sand proves the best way to extinguish the flames.) Since the grenade employs molecular disruption as well as incineration, creatures with resistance or immunity to fire take half damage if caught within atmosphere eater blasts. Objects within the blast radius also suffer damage, though items with a hardness of 10 or higher take damage on the first round only.

Since their disruptive reaction feeds off molecules in atmospheres, these weapons become ineffective in vacuum.

Such horrific ordnance has a sinister reputation throughout the Dragon Empire. Those carrying or openly deploying such weapons fall under suspicion as terrorists, revolutionaries, anarchists, and heartless sadists. Few know where the orc brigands of the Galinak Reaches obtain their meager supply, but it must be rare or dangerous indeed since they use such devices sparingly. Finding atmosphere eaters among even the most notorious arms dealers often proves difficult and dangerous. Although Mezzenbone's government officially condemns use of such savage weaponry, rumors abound of a secret ISPD facility in the Sithra Nebula where drow scientists research and develop larger versions of atmosphere eater devices, ones that could easily incinerate the air within an entire starship, or even huge regions of planets.

Blinding grenade: A generally despised weapon, a blinder is a complex device. When detonated, the grenade emits pulses of laser light, potentially blinding anyone within range who looks in its direction.

The grenade can fire once per round and has enough energy for 10 shots. Characters looking in the direction of the grenade must make a Reflex saving throw (DC 12) or be blinded. Victims of the blinder gain an additional save the following day. If this save is successful, the character regains his vision. If the save fails, the character is permanently blinded and the damage must be repaired with either surgery or magic.

Blinding post: A larger version of the blinding grenade, this is a stationary emplacement set to blind anyone approaching. It has a radio or communications laser receiver, so that friendlies can pass safely. The blinding attack is treated the same as the grenade's. A blinding post can fire at up to five targets per round and has enough power for 50 shots.

Dispersal mine: The dispersal mine serves as a rapid-deployment, anti-personnel weapon that covers an area with miniature mines. At first it appears like a canister grenade with a simple paper casing: the mines' dispersal cluster. After tossing it in the general area one wishes to deploy it, an internal incinerator strip destroys the paper casing, launching 10 spring-loaded mini-mines into separate 5-foot squares. The mines' outer casing consists of a photoreflective surface that mimics the general appearance of the ground around it, making them difficult to spot. Characters must make a Search check (DC 20) or Spot check (DC 25) to notice the mines. Characters with 5 or more ranks in the Demolitions skill gain a +2 synergy bonus on this check. Because they're

Explosive weapons

small, with minimal circuitry, few metallic parts, a hard-resin casing, and synthetic explosives, specialized sensor devices rarely provide a bonus to detect these mines.

Anyone walking through an area where a dispersal mine was deployed must make a Reflex save (DC 20) to avoid stepping on one. Short-range transmitters link all 10 mini-mines in the dispersal cluster. If someone activates one by stepping on it, the unit sends out a linked signal to the others, detonating them all. Anyone within the area seeded with mines takes 3d6 points of damage from each mine within 5 ft. of his position. Characters can make a Reflex save (DC 20) for half damage.

A careful demolitions expert can eventually find, disarm, and gather all the miniature mines from one dispersal cluster, and even deploy them manually on the ground or in a specialized configuration later; however, she cannot reassemble them into the original unit for effective deployment later.

Mercenary units used in planetary action keep dispersal mines handy to quickly mine defensive emplacements, high-security areas, and their escape routes after they've retreated. Seasoned soldiers don't deploy them capriciously, however, given how effectively they deny personnel passage through a specific area and the intensive time and effort required to gather and deactivate them.

Explosive-tipped arrow: Although modern arrows deliver more reliable and deadly performance, some seek shafts with an extra punch: arrowheads that explode once imbedded in foes, sending splinters of razor shrapnel through their flesh.

The explosive-tipped arrow incorporates a modified tip forged from sturdy metal. One can shoot an explosive-tipped arrow from archaic or enhanced bows, much like modern arrows constructed from composites and carbon fibers. It initially delivers normal damage for the bow from which it was shot. On the round following the hit, however, a small charge within the arrowhead explodes—activated by an impact fuse—sending shrapnel tearing though the victim's body and inflicting an additional 1d8 points of piercing damage. Seemingly decorative striations in the head form breaking points along which the arrow shatters, maximizing shrapnel damage.

The victim has a slight chance of tearing the arrow from his flesh before the arrowhead explodes internally. The arrowhead explodes at the beginning of the attacker's next action, and it is a standard action to remove the arrow.

An explosive-tipped arrow becomes useless after it hits and the head shatters, even if it misses its target. Although the exploding shrapnel proves effective at tearing through an opponent, it is not powerful enough to cause damage if it explodes near a target.

Explosive-tipped arrows are popular among cultures that incorporate technological enhancements into the tried and true forms of weapons, tools, and clothing of their original heritage. Assassins like this weapon because of a bow's near-silent delivery and the arrow's extra punch.

Hellfire grenade: Like the hellfire round, this is a magnetic bottle containing small quantities of antimatter. The device can be set off like other grenades. Anyone within the blast area takes radiation damage. The deadly potential for accidents and their extreme cost mean these weapons are rarely used by militaries. Given the radius of effect, hellfire grenades are almost exclusively used as demolition charges or fired from a grenade launcher.

Knuckleduster: This EMP grenade is nicknamed the "knuckleduster" for its resemblance to brass knuckles. The knobby little object is one of the smaller thrown EMP devices employed by the Legions. It consists of two small explosives laced with copper coils and a series of shaped metal pieces. The listing shows two damage ratings. The first is for the explosion's normal damage, and the second is EMP damage applied only to electrical or electronic devices.

Screamer grenade: A more powerful version of the flash-bang grenade, this device releases a tremendous cacaphony when it is detonated. Any living being in the blast radius must make a Fortitude save (DC 20) or be stunned and deafened. The stunned condition lasts 1d6 rounds and the deafened condition can be permanent. The character makes another Fortitude saving throw after eight hours. A result of 20+ means the character regains his hearing, and a result of 15–19 means the character is still deafened but can make another save the following day. A lower result means the character is permanently deafened and must be healed with surgery or magic.

Sonic deterrent grenade: This grenade emits a highly unpleasant series of sonic pulses that cause organic beings to become disoriented and nauseous. The grenade's effects function for six rounds. Its blast radius can be set lower if needed. Everyone within the area of effect must make a Fortitude saving throw every round (DC 15, +1 per previous check) or be nauseated. These conditions last for 1d3 rounds after the character is no longer subjected to the sound. These grenades, both thrown and propelled, see a lot of use in crowd control.

Smudgepot: Sometimes a smoke grenade isn't enough to conceal one's actions, limit visibility, and generally cause confusion. For many goblinoid mercenary units, smudgepots offer an efficient means of

covering a large area with toxic, sight-obscuring smoke.

This weapon consists of a metal canister with a foil seal covering the top. A plastic-fiber loop provides a convenient handle and a means to hook the bulky cylinder to a gear belt or pack. To ignite, one pulls the tab on the foil seal, opening the bucket top and sparking the igniter. The contents catch fire and burn slowly, spewing forth a churning cloud of foul smoke. This billows out in a 50-foot radius, overflowing enclosed rooms or wafting with any breeze. The smoke persists in still conditions for 2d6+6 rounds and in windy conditions for 2d6+1 rounds. Visibility within the smoke is limited to two feet.

Everything within the cloud has nine-tenths concealment. The cloud also blocks the line of sight of anyone trying to see to the other side. The smudgepot fumes not only obscure vision, but also harm those breathing its vapors. Anyone who is in or who enters the smoke cloud must make a Fortitude saving throw every round (DC10 +1 per previous check) or be blinded and nauseated for 1d3 rounds after they have left the affected area. A filter mask, hostile environment suit, powered armor, or other sealed system protects against this effect; beings who do not have a metabolism (constructs, robots, soulmechs, and undead) are unaffected by the smudgepot's fumes.

The chemicals within the smudgepot burn furiously until consumed. Should anyone topple the cylinder, the viscous contents splatter out, causing 1d4 points of splash damage to anyone within the 5-foot spill radius. They must also make a Reflex saving throw (DC 15) to avoid catching on fire and taking 1d6 points of damage each round until extinguished (see Catching on Fire in the DMG).

Given the smudgepot's ungainly size and weight, it proves ineffective as a thrown weapon.

Standard EMP grenade: Standard issue in the Legions, these squat cylinders are meant for use with rifle-mounted grenade launchers. They are also quite handy for demolitions. The first damage listed is fire damage. The second listed is EMP damage applied only to electric or electronic devices or components.

Tangleweb grenade: The military division of Molecular DynaCorp, makers of fluid-composition products, developed the tangleweb grenade as an instant-deployment hindrance measure. The weapon looks like an ordinary canister grenade, but upon detonation (through an impact fuse) it sends strands of synthetic resin that cover a 10-by-10-foot area. The ends of the strands take firm hold of anything they contact, sticking to doorframes, hatch edges, bulkheads, walls, and ceilings in a massive web. Once the molecular reactants in the resin sense a cessation of rapid movement, they instantly harden, forming jagged, sharp edges along their lengths. In open areas, drooping wire strands prop up the rest of the web between one and two feet from the ground, an ideal height for slowing pursuers on foot. When anchored on the sides or from above, the resin forms a razor web that can block a restricted passage.

Although the barrier proves ineffective against vehicles, it serves as a formidable obstacle for personnel. Beings attempting to pass through the tangleweb razor thicket must make a Reflex save (DC 15). Success means the character can pick her way through the tangle to the other side. Failure, however, entangles the character in the synthetic wire barbs that snag gear, clothing, and even exposed flesh. Anyone ensared in the wire takes 1d3 points of slashing damage each round. If the character does not make an additional Will save (DC 15) to maintain her composure, she adds her Strength bonus to this damage. Ensnared creatures must make an Escape Artist check (DC 15) to extricate themselves. If this check fails, the entangled character takes damage a second round; the DC for each check also increases by +1 every round she remains stuck in the wire.

Each wire strand has 7 hit points for purposes of hacking through the entanglement, though one must cut at least 4d4 strands to effect a relatively unhindered passage through the entanglement. Specialized tools like wirecutters or laser torches in skilled hands can automatically cut two wire strands each round.

Molecular DynaCorp does not offer a commercially available solvent that would destabilize the hardened resin wire's composition, though some in military circles have leaked word that such a solvent exists for situations when authorities encounter outlaw forces using tangleweb grenades. A can of solvent sufficient to dissolve one tangleweb might sell on the black market for 1,000 cr., though the cost of finding and bribing appropriate underworld contacts might exceed that price.

Missile, AA-EMP: The anti-aircraft EMP missile can be fired from vehicles or man-portable launchers. It is significantly larger and faster than ground-to-ground missiles. The explosive creates superheated plasma around a series of metallic lenses and contacts. The rapid movement of charges is focused into a powerful pulse. Normal damage is done as bludgeoning damage, from concussive effects of the blast. The missile travels with guidance 25, moving 12,500 feet (speed 25 on the aircraft scale) the round it is launched and 25,000 feet (speed 50 on the aircraft scale) every round thereafter.

Missile, coverage-FAE: Coverage Fuel-Air Explosive missiles are frequently used in bombing

runs. The missiles consist of a volatile liquid that is sprayed over a wide area. The chemical relies on oxygen in the air to combust. If it explodes near an unsealed building, it will suck the air out, causing inhabitants to suffocate. Anyone in the area of effect is deprived of oxygen for 1d12 rounds. This duration may be longer if missiles blanket a large area.

Low pressure or an atmosphere otherwise lacking oxygen causes damage to be spread out over a longer time. At 0.5 atmospheres or in an atmosphere with half normal oxygen, a missile would do half damage on two subsequent rounds. The fuel will not ignite at 0.1 atmospheres or less. High-pressure atmosphere shortens the duration of suffocation, as oxygen is replaced more quickly. In a vacuum, underwater, or in an atmosphere lacking oxygen, the damage done is the minimum bludgeoning damage.

These missiles are frequently designed with two or three warheads. The missile has a guidance of 20, moving 1,250 feet (speed 25 on the surface scale) the round it is launched and 2,500 feet (speed 50 on the surface scale) every round thereafter.

Missile, coverage-FOE: Coverage Fuel-Oxidized Explosive missiles do not require oxygen in the atmosphere. They can be used underwater or in a vacuum, though this does not create the same anoxic (suffocation) effects as the FAE. Underwater, the blast radius is 30 feet and damage is halved. In a vacuum, damage is halved but the blast radius is 100 feet. The missile has a guidance of 20, moving 1,250 feet (speed 25 on the surface scale) the round it is launched and 2,500 feet (speed 50 on the surface scale) every round thereafter.

Missile, EMP: A ground-to-ground missile that uses the same plasma pulse generation as the AA-EMP. The initial damage is fire damage, due to the spray of superheated debris. The secondary damage is EMP damage. This weapon is used both in man-portable and vehicular systems and is commonly used to take out vehicles. It has a guidance of 20, moving 1,250 feet (speed 25 on the surface scale) the round it is launched and 2,500 feet (speed 50 on the surface scale) every round thereafter.

Missile, hellfire: Only developed as a prototype, hellfire missiles deliver incredible destructive force at great range. Antimatter contained within the missile almost instantly annihilates upon contact with matter, forming an intense explosion. The initial damage is half bludgeoning and half fire. The secondary damage is listed as doses of radiaiton. There are worrisome rumors that Emperor Mezzenbone is increasing the Empire's production of these weapons. A hellfire missile has a guidance of 20, moving 1,250 feet (speed 25 on the surface scale) the round it is launched and 2,500 feet (speed 50 on the surface scale) every round thereafter.

Missile, laser: These missiles are related to the maser missiles. The design is simpler, as the frequency produced is less precise. The missile closes within range of the target and then fires. As it does not have to approach as close as other missiles, it is less vulnerable to countermeasures. The laser produced is a direct attack, with a range increment of 150 feet, or three squares on the ground scale. It has a ranged attack bonus of +15. The laser deals fire damage. The blast damage listed deals additional fire damage if the missile happens to explode next to potential targets. The missile has a guidance of 20, moving 1,250 feet (speed 25 on the surface scale) the round it is launched and 2,500 feet (speed 50 on the surface scale) every round thereafter.

Missile, maser: The first explosive masers were torpedoes, typically launched from large space platforms. The current missile design is suitable both against aircraft and ground targets, and is man-portable. The explosive is a carefully shaped charge that moves through a series of metal lenses. The result is a coherent release of microwaves. Since the

missile obliterates itself when firing, it releases much greater energy than a repeating weapon. The maser's range also means the missile does not have to intercept a target. It attacks with a ranged attack bonus of +15. The weapon deals the initial damage as fire damage to anything in the blast radius. The second listed damage is the fire damage dealt by a successful hit with the maser. It has a guidance of 20, moving 1,250 feet (speed 25 on the surface scale) the round it is launched and 2,500 feet (speed 50 on the surface scale) every round thereafter. It fires once the target is within maser range (20 ground vehicle squares or two aircraft squares).

Missile, multiple-warhead: The multiple-warhead missile is an efficient way to strike at several targets at once. The missile has normal fuel and propulsion systems. Instead of an explosive charge, it contains smaller self-propelled warheads or submunitions. When the missile reaches a specified distance from its target (or targets), it launches the warheads. Warheads may then acquire different targets, fire at the same target, or distribute in a pattern. Against vehicles, each potential target must be acquired before a warhead can seek it.

Multiple warheads are useful when dealing with antimissile systems, flooding these countermeasures with many incoming targets. Multiple warheads are also good for saturation bombing. A single missile can approach a base or other target and then rain down explosives across a wide area.

A multiple-warhead missile is a conversion of other missiles. Each warhead's guidance is equal to the main missile's guidance minus the number of warheads. The warhead travels under power for one round after being launched, and thereafter maintains the same speed and heading until it hits something.

The blast radius and damage dealt by a multiple-warhead missile is divided among the different warheads. The blast radius of each warhead should be rounded to the nearest five-foot increment. The cost of the missile is increased by 20% per warhead (including the first), but the weight is the same as a standard missile. For example, a high-explosive missile with five warheads would have guidance 15 (base 20, less one for each warhead). It would deal 6d10 points of damage, but this damage would be divided evenly among the five warheads. Each warhead has a blast radius of 10 feet.

Rocket, EMP: This rocket is particularly handy against vehicles or installations, due to the electromagnetic pulse it generates. It uses the same explosive effect as EMP missiles.

Rocket, hellfire: Lacking any delicate controls, this is one of the most destructive man-portable devices ever created. It saw use during a border skirmish on Keresi, where natives were supported by separatists in the region. Using underground tunnel networks, the Keresians were able to deploy quickly against Legionnaires. Small air bases and mechanized infantry could be wiped out with a few hellfire hits. Though orbital bombardment saw an end to the problem, military leaders remain worried by the possibility of hellfire rockets being used on more populated worlds.

Torpedo, EMP: The vulnerability of vehicles to EMP makes this an attractive weapon. The weapon is simply a scaled up version of the EMP missile. With multiple warheads, it can be useful against formations of small craft. The initial damage listed is fire damage, and the second is EMP damage. An EMP torpedo has a guidance rating of 25. It moves at speed 25 (on the surface vehicle scale) the round it is launched and speed 50 every round thereafter.

Torpedo, hellfire: These weapons are useful for disabling ship and submarine crews without harming the vehicles. The initial damage is fire damage and the secondary damage is the number of doses of radiation inflicted against living creatures caught in the blast radius. The hellfire torpedo has a guidance rating of 25. It moves speed 25 (on the surface vehicle scale) the round it is launched and speed 50 every round thereafter.

Starship Weapons

Railgun: This starship weapon creates an electromagnetic field to accelerate heavy kinetic energy projectiles at extreme ranges.

Torpedo, laser: Capable of pumping out huge amounts of energy, this torpedo approaches a target and fires a heavy laser with a ranged attack bonus of +20. The laser torpedo deals fire damage. Against well-protected capital ships, these weapons can be devastating. A laser torpedo has a guidance rating of 25. It moves at speed 25 (on the spacecraft scale) the round it is launched and speed 50 every round thereafter. Once it is within firing range, it detonates and discharges its powerful laser pulse. The laser is designed for use in vacuum and it does not function effectively in a thin or greater atmosphere.

Torpedo, pulse: A variation on the EMP torpedo, this system is designed specifically to knock out sensors. When the torpedo gets within range, it explodes and releases a powerful electromagnetic pulse. The weapon deals the listed electricity damage. In addition, a successful hit with a pulse torpedo automati-

STARSHIP WEAPONS

Weapon	Cost	Damage	Critical	Range Increment	Weight	Type
Railgun	40,000 cr	10d12	x3	75,000 ft.	1,000 lb.	Piercing
Torpedo, laser	1,000 cr	8d10.	x2	10,000 ft.	150 lb.	Fire
Torpedo, pulse	1,500 cr	5d10/*	x2	100 ft.	200 lb.	Electricity *
Torpedo, pulse-caster	4,000 cr	5d12/*	x2	—	300 lb.	*

cally does critical damage to sensors. Though the actual damage is minimal, it is multiplied by 10 to determine the severity of the critical damage. The pulse torpedo has a guidance rating of 25, moving speed 25 (on the spacecraft scale) the round it is launched and speed 50 every round thereafter.

Torpedo, pulse-caster: This torpedo fills a large volume of space with charged particles that remain for 2d6 rounds. The initial blast damage is multiplied by 10 and calculated as a critical sensor hit to any ship within or moving through the blast area. The only real damage done is within 100 feet of the original blast (electricity). The lingering effect poses no physical danger. The torpedo can be set to detonate wherever desired and distribute either a spherical or oblong shape. In either case, the total coverage is 13 squares maximum diameter on the spacecraft scale. The target location can be preset or programmed as the torpedo moves. The DC of any electronic observations or communications through the area is increased by the weapon's damage total, normally making such attempts impossible. The torpedo has a guidance rating of 25, moving speed 25 (on the spacecraft scale) the round it is launched and speed 50 every round thereafter.

Extras

Antimissile system: This computer and sensor system allows the operator to more easily target and destroy incoming missiles. The system is manportable can be rigged to personal and heavy weapons with a Repair check (DC 10). The system halves the speed penalties on attack rolls against missiles and surface-based torpedoes.

For example, a ground-based laser suffers a –12 penalty to hit a missile traveling at speed 50. If the laser is rigged to an antimissile system, this penalty is reduced to –6. For each additional weapon linked to an antimissile system, its cost and size increase by 20%.

This system is specifically designed to identify and target missiles and torpedoes. It cannot be used to target vehicles or other objects.

Antitorpedo system: This system functions just like an antimissile system, but it is designed for use in space combat. It is engineered to identify torpedo threats at the extreme ranges of space engagements and to offset the incredible speeds of space-based torpedoes.

Body lock: This is an integrated security device designed to prevent unauthorized use of a firearm. A tiny microchip is surgically implanted under the skin of the user's palm. The chip transmits a wireless, coded signal to a receiver built into the weapon's grip. If the weapon does not receive the appropriate signal, it cannot be loaded, unloaded, or fired. A body lock can be bypassed or deactivated completely with an electronics toolkit and a Disable Device check (DC 25). The lock can be hacked to recognize new authorization codes with a Use Device check (DC 30).

Collapsible stock: This weapon accessory can be attached to any handgun, allowing the weapon to be shoulder-fired for improved accuracy. When a handgun with a collapsible stock is used with two hands, attack rolls with the weapon gain a +1 circumstance bonus.

Extended magazines: Magazines with increased ammunition or energy capacity are available throughout the Dragon Empire. Cost and size are tied directly to capacity, so a magazine that holds twice the normal number of rounds costs and weighs twice as much. The weight of a magazine cannot exceed half of the weapon's weight. Each 100% increase in ammunition capacity imposes a –1 circumstance penalty on attack rolls using the weapon unless it can be braced or supported. The DC to detect a concealed weapon is reduced by 1 for every 50% increase in ammunition capacity.

EXTRAS

Item	Cost	Weight
Antimissile system	20,000 cr	100 lb.
Antitorpedo system	200,000 cr	1,000 lb.
Body lock	100 cr	1/2 lb.
Extended magazine	*	*
Collapsible stock	125 cr	2 lb.
Inertial harness	400 cr	10 lb.
Maser sight	150 cr	1 lb.
Radar sight	500 cr	2 lb.
Spring holster	50 cr	1/2 lb.
Switchable magazine		
Magazine	*	x2
Weapon		x1.2
UV laser sight	100 cr	1 lb.
Widevision scope	600 cr.	1 lb.

For example, an assault carbine's maximum extended magazine would be a 250-round drum, or five times its normal capacity. It weighs five pounds, half of what the weapon normally weighs. A character firing the carbine without bracing it suffers a –4 penalty on attack rolls. The Spot and Search DCs to detect the weapon if concealed are reduced by 8.

Inertial harness: This harness consists of a gyroscopic assembly and a rigid mount for a weapon. Padded straps are secured to the wearer. A character wearing the harness can mount a single weapon one size category greater than he is. For example, a Medium-size character could use the harness to mount a Large weapon, such as a light machinegun.

The harness stabilizes weapons, with several beneficial effects. A character firing a burst from an automatic weapon mounted on a harness hits with an extra shot for every 4 by which his attack roll exceeds the opponent's AC. Characters with the Autofire feat (see *Starfarer's Handbook*, page 87) gain no benefit from a weapon harness, as they are already trained to effectively stabilize automatic weapons. A character using an inertial harness can also use suppressive fire at a –2 circumstance penalty, rather than the normal –4 penalty. Finally, the harness also provides a +4 circumstance bonus on Freefall checks that result from firing a weapon in microgravity or zero gravity (see *Starfarer's Handbook*, page 79).

The harness may be worn over armor. In some cases, it is integrated into medium, heavy, and powered armor. The harness reduces a character's maximum Dexterity bonus by 1 and imposes an armor check penalty of –1 that stacks with any armor the character is wearing. The harness is also restricting and imposes a 5% chance of arcane spell failure.

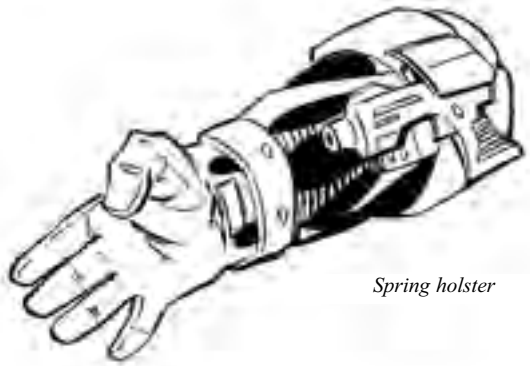
Maser sight: This is a variant of the standard laser sight based on maser technology. It is invisible to the naked eye and penetrates water vapor easily. A projected maser line shows up in infrared and ultraviolet.

Radar sight: This sophisticated device is a miniature targeting radar suitable for personal weapons. It emits radio pulses and tracks the returned signals. The radar sight grants a +1 circumstance bonus on ranged attack rolls. The device's primary advantage over the more common laser sight is that it is not defeated by smoke, heavy fog, or other such environmental conditions.

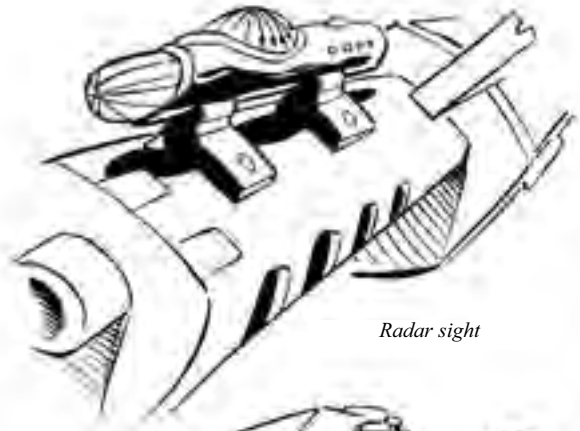
Spring holster: This concealed holster is typically attached to the user's forearm. A twitch of the wrist activates the mechanism, freeing the weapon to spring into the user's hand. A spring holster can only be used with a weapon two size categories smaller than the user. Holdout pistols are by far the most common. The spring holster allows the user to draw the weapon as a free action, and the holster is small enough that it has no effect on concealability.

Selectable magazine: This class of ammunition magazine is designed for slug throwers, gyrojets, railguns, and other semiautomatic or automatic projectile weapons. A selectable magazine is designed to accept several different types of ammunition. An empty selectable magazine costs the same amount as a fully loaded standard magazine, and therefore varies depending on weapon type. Because it supports sep-

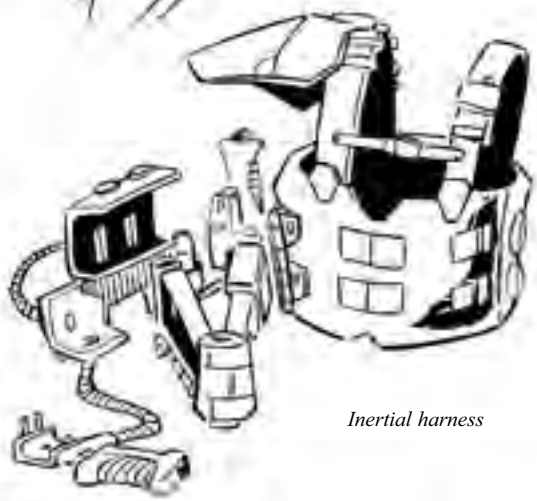
Collapsible stock



Spring holster



Radar sight



Inertial harness

arate ammunition feeds, the magazine is bulky and weighs twice as much as a conventional clip. The base of the magazine features a simple toggle switch to alternate ammunition types. Capacity is tracked on a small electronic bar display, and this data can be uplinked to a datapad or heads-up display. Switching ammunition types requires a move-equivalent action. A character with the Speed Load feat (see *Starfarer's Handbook*, page 89) can switch ammo type as a free action.

Firearms specifically designed to take advantage of selectable magazines cost 20% more than standard versions. Switching between ammo types with these weapons is a free action. A character could switch ammo types between each shot in a round, though bursts must fire a single type of ammunition. The display is placed on the weapon's stock or receiver, making it easy to check.

UV laser sight: This device is similar to a laser sight, but the light emitted is invisible to unaided vision. UV sights work well underwater. Like normal laser sights, the device provides a +1 circumstance bonus on attack rolls. A character using this sight must be wearing UV goggles to gain this benefit.

Widevision scope: The widevision scope looks like a standard, cylindrical sight mounted atop a weapon's barrel, with a semi-circular sensor attached horizontally midway along the scope's length. This provides magnified vision of the target area while allowing the user to maintain some awareness of his immediate surroundings. The slightly larger viewscreen ocular displays a split readout: On top it shows a wide, electronically enhanced image of the surrounding area, adjusted for low-light conditions; below it, one sees the magnified target area and reticule.

The scope provides 10x magnification for the purpose of distance-hampered Spot checks (see *Starfarer's Handbook*, page 77), negates penalties for poor lighting, and doubles the effective range increment for the weapon. The widevision system also gives the user a better sense of activity in the immediate vicinity: The electronically enhanced alert sensors allow him to keep half his Dexterity bonus to AC (rounded down) while using the scope to mark a distant target.

Ammunition

There are many exotic rounds that can be purchased for projectile weapons. Special rounds can be used so long as the type is appropriate for the firearm. The rounds are purchased based on a multiplier of the base ammunition price. Characters may have magazines with different types of rounds, swapping as needed.

The same ammunition types may be purchased for railguns, but the cost is tripled.

Antipersonnel rounds: Antipersonnel rounds, restricted to law enforcement and military use, have a devastating effect against unarmored opponents. They are designed to break up on impact, sending numerous small fragments tumbling through the body. When using an antipersonnel round, the target's armor bonus or natural armor bonus is tripled. If the attack hits, the round inflicts double normal damage. The hardness of objects or cover is also tripled.

Armor-piercing rounds: AP rounds are restricted to military personnel. This ammunition type eliminates up to 5 points of armor bonus, natural armor bonus, or hardness. Armor-piercing rounds tend to pass right through their target. As a result, they suffer a –2 penalty on all damage rolls.

Explosive rounds: This ammunition is restricted to military personnel. Explosive rounds detonate on impact with their target, dealing half fire damage and half piercing damage. The damage for an explosive round is double the weapon's base damage.

HEAP rounds: This costly ammunition combines the effects of armor-piercing and explosive rounds. The round eliminates up to 5 points of armor bonus, natural armor bonus, or hardness and deals double the base weapon damage. The damage is half fire and half piercing, and the explosive effect eliminates the damage penalty normally associated with armor-piercing ammunition.

Heatseeker: These munitions can only be fired from gyrojet weapons. Heatseeker rockets gain a +2 circumstance bonus on attack rolls against living creatures, vehicles, robots, and other targets with a noticable thermal signature. Heatseekers also ignore any miss chances due to concealment against such targets. They are notoriously ineffective against undead, constructs, and most plants.

Hellfire rounds: A hellfire round consists of a magnetic capsule that contains a microscopic quantity of antimatter. While miniscule, the antimatter is sufficient to release dangerous levels of heat and radiation. Superconducting loops create the capsule and can maintain it indefinitely. Hellfire rounds have an effective hardness of 20.

Ammunition Type	Cost Multiplier
Antipersonnel	x1.2
AP	x2
Explosive	x1.5
HEAP	x2.5
Heatseeker	x3
Hellfire	x3
Incendiary	x1.5
Powder	x1

A weapon firing a hellfire round deals radiation damage (see *Guide to the Galaxy*, page 119). Damage is measured in doses of radiation the target is exposed to. Hellfire rounds are outlawed except for military use, and even military units are restricted in their use.

Incendiary rounds: Composed of a powder that volatizes quickly when exposed to air, these rounds shatter upon impact. A flare of heat is released, possibly igniting the target. Restricted to military use, incendiary rounds have particularly poor penetration. Armor bonuses and natural amror bonuses are doubled against attacks by incendiary rounds. The rounds inflict three times normal damage by weapon type, and the damage is fire damage. The round burns up completely after the first range increment, so distant shots are impossible. These rounds function only in a normal atmosphere. Underwater versions have the same cost, and do not work out of water. Oxidant versions do not require air and work anywhere. Oxidant incendiary rounds cost three times what normal incendiary rounds cost. If an incendiary round cannot burn, such as a normal round in vacuum, it is treated as a powder round.

Powder rounds: Composed of compressed powder, these rounds vaporize when they meet any cover or resistance. Damage is halved and treated as subdual damage. Objects take 1/4 damage from powder rounds. Powder rounds are uncommon among soldiers and adventurers, but they are very useful for crowd control and disarming suspects.

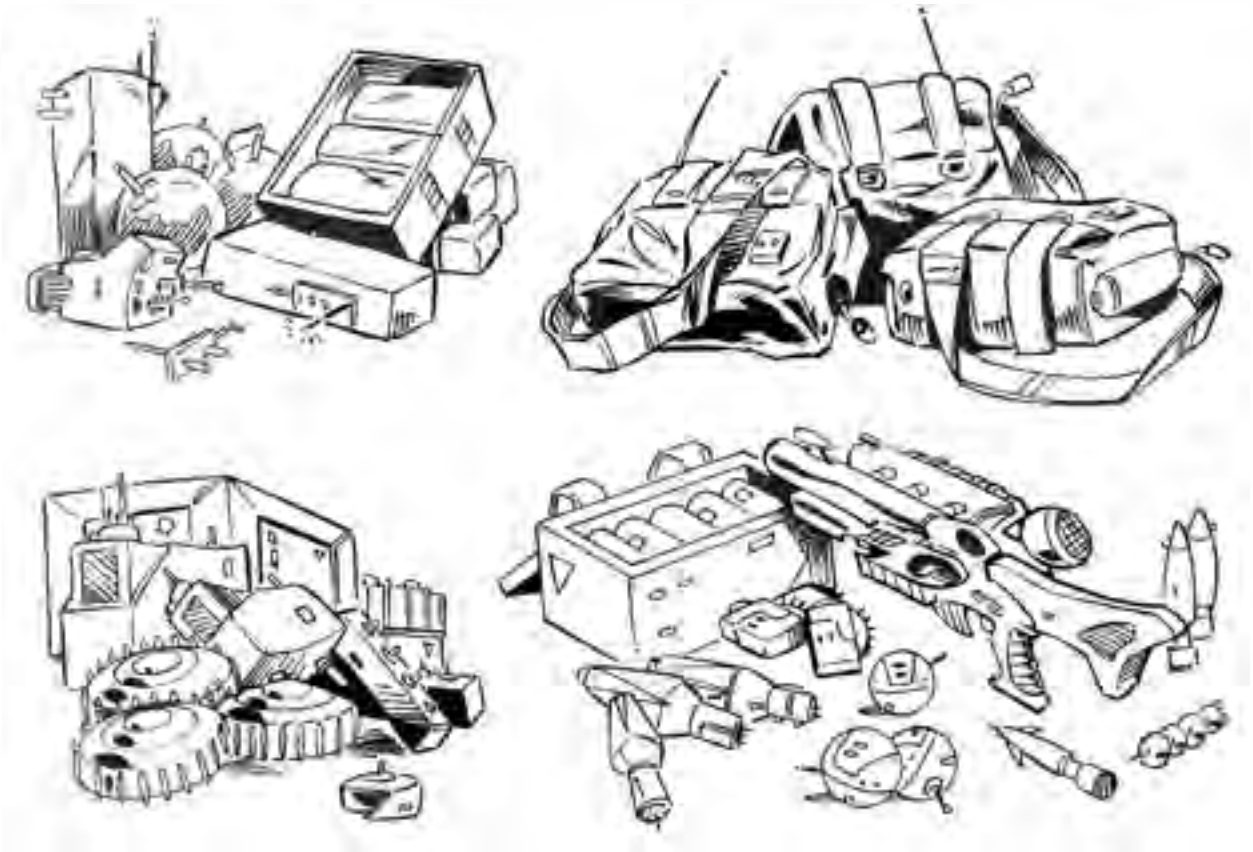
EXPLOSIVES

Item	Cost	Damage	Blast Radius	Weight	Type
Antipersonnel mine	300 cr	6d6	30 ft.	3 lb.	*
Antivehicle mine	1,000 cr	10d12	5 ft.	7 lb.	*
Plastic explosives	100 cr	5d6*	15 ft.*	1 lb.*	*

EXPLOSIVES

Antipersonnel mine: This is a small explosive charge encased in a metal housing. It is simple enough to be easily set in the heat of battle (Demolitions DC 5) and can be detonated with either a timed or remote detonator. The mine deals 6d6 points of damage to anyone within 30 ft. Characters in the blast radius can make a Reflex save (DC 20) for half damage. Half of the mine's damage is fire damage and half is piercing damage.

Antivehicle mine: This explosive device is similar to the antipersonnel mine, but it is designed to damage vehicles. It is concealed under a light covering of dirt or foiliage. Characters can notice the mine by making a Spot check opposed by the Demolitions check of the character who placed the mine. The antivehicle mine typically requires time and concentration to place correctly (Demolitions DC 15). It is designed to detonate when at least 500 lb. of pressure is applied to the trigger plate. The mine's focused explosion deals 10d12 points of damage (half fire and half piercing). Anyone caught in the blast radius can make a Reflex save (DC 20) for half damage.



Explosives

Plastic explosives: This is a powerful explosive compound with the consistency of clay or putty. A 1-lb. charge of plastic explosive has a blast radius of 15 ft. and deals 5d6 points of damage (half fire and half bludgeoning). Anyone caught in the blast radius can make a Reflex save (DC 15) for half damage. Each additional pound of explosives added to the charge increases the damage by 2d6 and the blast radius by 5 feet.

A character can also use plastic explosives to set a shaped charge that focuses its explosion in a specific direction. The DC on the Demolitions check is increased by +5 for a shaped charge. The blast radius of a shaped charge is reduced by 5 ft. and its damage is doubled. For each additional pound of explosives added to the shaped charge, damage is increased by 2d6 and the blast radius is increased by 5 feet. For a shaped charge, the blast area is treated as a cone originating at the point where the charge is placed.

Armor Modifications

Active armor: Active armor is a modification of other types of armor. It uses materials that can move and change in response to possible threats. Threats must be within 30 feet and visible. Active bonuses to armor are priced just like enhancement bonuses to magical armor, though the cost is halved and active armor does not require item creation feats or an expenditure of XP to create.

Active bonuses stack with enhancement bonuses to armor. However, active and enhancement bonuses are added together to determine the armor's total cost. For example, armor with a +1 active bonus costs +500 cr. Adding a +1 enhancement bonus would cost an additional +1,000 cr.

Armored items: Armor can be applied to devices and equipment at half the cost of equivalent personal armor. Each +1 armor bonus also adds 10% to the item's weight. For example, protection equivalent to shock armor (+10 armor bonus) would cost 1,000 cr and double the weight of the item.

Reinforced items also have higher hardness ratings. For every 5 points of armor bonus added to an item, its hardness increases by 1. The DM should use good judgment in determining whether an item or device can be armored. Most items composed of light, fragile materials, such as paper or glass, cannot be armored. Items made from metals, plastics, and various synthetics and composites are most likely to be armored.

Morphic armor: Composed of "smart" materials, morphic armor is able to move and adjust to the wearer. The armor remains loose and flexible for normal use but can be activated with a free action in combat situations. Activated morphic armor stiffens and becomes rigid, providing greater protection from a variety of weapons. Morphic armor is easily programmable, allowing the user to choose how much mobility to sacrifice for protection.

Morphic versions of any of the existing armor types, except powered armor, can be purchased from specialized resellers. As a free action, the user can program the armor to alter its material state. The armor bonus provided by the armor can be increased by up to +5. However, for every point of armor bonus added, the armor check penalty increases by 1 and the arcane spell failure chance increases by 5%. For every two points of armor bonus added, the maximum Dex bonus drops by 1. Activated armor drops the wearer's base speed to 20 ft./15 ft., as medium or heavy armor, regardless of the increase in armor bonus.

For example, the armor bonus of morphic combat fatigues could be increased to a maximum of +11. In this state, it has a maximum Dex bonus of +4, an armor check penalty of –6, and an arcane spell failure chance of 35%. The wearer's speed drops to 20 ft./15 ft.

The cost of morphic armor is the cost of the base armor type multiplied by 5. For example, morhpic combat fatigues cost 500 cr.

Specialized armor: Armor may be specialized to protect against a particular form of damage. The standard damage types include bludgeoning, piercing, slashing, acid, cold, electricity, EMP, fire, and sonic.

Specialized armor offers the wearer a tradeoff. One point of the standard armor bonus is traded for two points of armor bonus against the specialized forms. Battle armor, for example, normally has an armor bonus of +8. A specialized version might be +6/+12 (electricity). The armor would provide a +6 armor bonus against most attacks and a +12 armor bonus against electricity.

Armor can even be completely specialized. For example, a fully specialized flight suit (ordinarily an armor bonus of +4) might provide a +0 armor bonus against most attacks and a +12 armor bonus against fire attacks. Armor can also have multiple specializations, though this is rarely an effective option.

Specialized armor costs double the listed price for the base armor type.

Variable armor: This armor is sometimes called adaptive armor. It is able to change its structure between a set number of forms. Each form may have

ARMOR

Armor	Cost	Armor Bonus	Max Dex Bonus	Armor Check Penalty	Arcane Spell Failure	Speed 30 ft.	Speed 20 ft.	Weight
Heavy armor								
Vulcan suit	2,000 cr	—	+0	–4	25%	20 ft.	15 ft.	30 lb.
Class I vac suit	3,000 cr	+9	+5	–3	20%	20 ft.	15 ft.	85 lb.
Class II vac suit	7,000 cr	+12	+2	–5	35%	20 ft.	15 ft.	100 lb.
Powered armor								
Aquatic hardsuit	15,000 cr	+16	+0	–6	40%	20 ft.	20 ft.	500 lb.
Class III vac suit	12,000 cr	+12	+2	–4	35%	20 ft.	20 ft.	100 lb.
Class IV vac suit	17,000 cr	+16	+0	–6	40%	30 ft.	30 ft.	300 lb.
High-g hardsuit	10,000 cr	+14	+0	–6	40%	30 ft.	30 ft.	250 lb.
Jangala hardsuit	20,000 cr	+12	+2	–2	35%	40 ft.	40 ft.	200 lb.
Extras								
Aganax helmet	250 cr.	—	—	—	—	—	—	3 lbs.

different specializations. Variable armor is treated like specialized armor, with a fixed number of states. The base cost for variable armor is double the base armor type. The cost is further increased by 10% for each specialized form.

For example, a battle suit with three forms would cost 1,365 cr. These forms might be normal, with a +7 armor bonus against all attack types; antilaser, with a +4 armor bonus against most attacks and a +13 armor bonus against fire attacks; and antiblaster, with a +4 armor bonus against most attacks and a +13 armor bonus against electricity attacks.

Switching forms is a free action, but it takes the suit a full round to change. Until the following round, the suit is treated as if it were still in its original form.

ARMOR

Aganax helmet: Before the planet Nallar became assimilated into the Dragon Empire, its humanoid inhabitants waged a genocidal war against an insectoid race called the aganax. Nallar warriors took the heads of aganax they slaughtered and fashioned them into helmets that amplified their own senses through the preserved sensory organs in the chitinous skull. Although exposure to the Empire's myriad cultures blunted their violent intolerance, the Nallar continue to practice their own brutal traditions by crafting practical items from the parts of defeated undesirables, particularly insectoids.

Most merchants consider any helm crafted from the skull of an insect an aganax helmet. With the mandibles cut away, the helmet sits on one's head, with the compound eyes bulging from the top and sides, and the antennae trailing behind like two obscene, anemic plumes. The insides contain padding for comfort, plus a metal interface transducer in the back. When properly crafted, the helmet bestows a +4 circumstance bonus on Listen and Spot checks, linking the dead insectoid's preserved antennae and multifaceted eyes through a biogenic computer interface unique to the technomancers of Nallar. Although it draws some power from the wearer's natural bioelectrical field, the helmet also uses a microcell to provide enough power to run the helmet for three months.

Wearing an aganax helmet comes with some disadvantages. The bizarre-looking helm draws unnecessary attention in most civilized societies. Since the user essentially wears the head of an enemy as a hat, she suffers a –2 circumstance penalty on Charisma-based skill checks when interacting with others. This penalty increases to –8 in the presence of insectoid beings.

Obtaining an aganax helmet of average quality (with the effectiveness described above) usually requires a trip to Nallar to barter or bargain with the warrior caste of that planet. The listed price reflects

the average value of the gift, trade, or gold required to purchase a helm directly from the Nallar. Occasionally aganax helmets make their way into the stocks of outland traders or armorers dealing in exotic cultural pieces, though they don't always advertise that they're selling helms made from the heads of dead, frequently sentient insects.

Aquatic hardsuit: This is a modification of the more common combat hardsuit. The suit is capable of almost constant underwater operation, though fuel limitations are a factor. Aquatic hardsuits are frequently equipped with sonar, UV sensors, and blue laser weaponry. These streamlined suits blur the line between armor and vehicle. In an aquatic hardsuit, a character may move in water or on land at 20 ft., or activate a powered thrust mode and move as a marine vehicle. It functions at a depth down to 2,000 feet.

The suit's articulated arms have an effective Strength of 18. Main propulsion consists of internal screws, feeding water through vents in the front and propelling them out the back. The suit provides a constant environmental seal, like that of a vacuum suit. An integrated artificial gill provides oxygen as long as the suit is submerged.

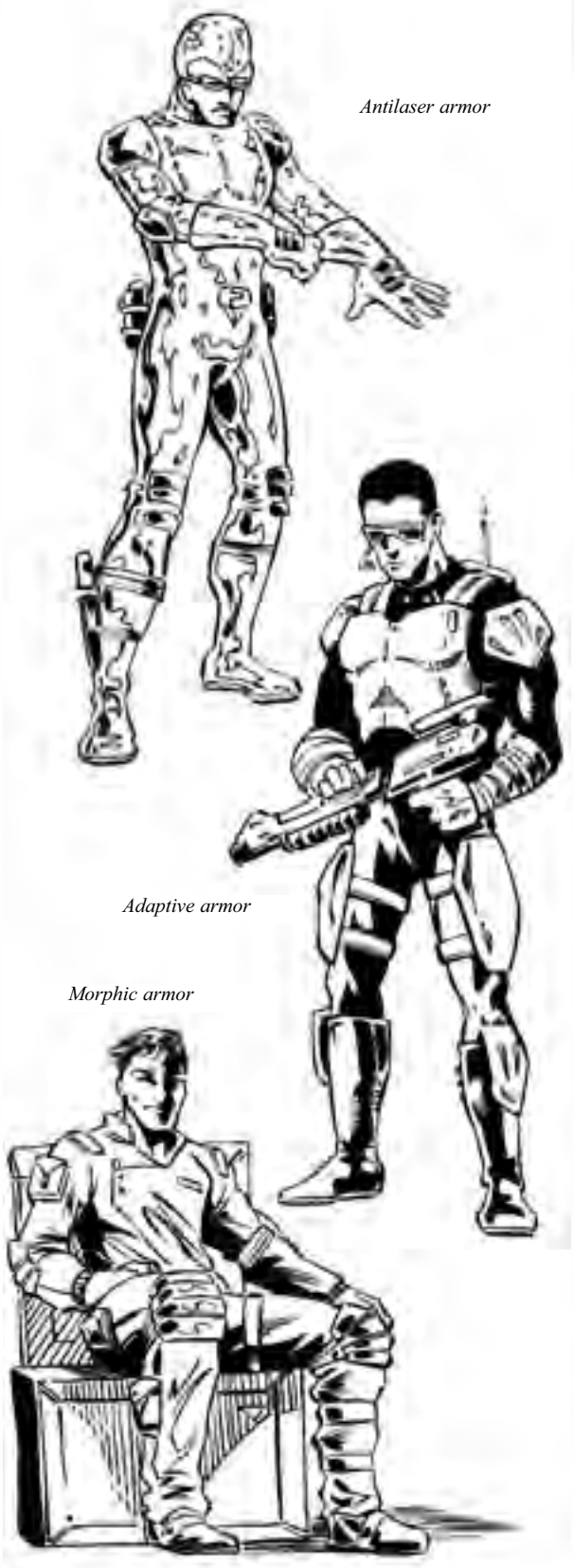
An aquatic hardsuit comes with an IO display, personal communicator, digital binoculars, UV laser sight, and digital mapbox. The hardsuit has hardness 5, and this protection applies to the wearer.

The streamlined design makes this suit a bit difficult to operate. It also requires some training to use weapons properly. In powered thrust mode, an aquatic hardsuit has a top speed of 15 (surface scale); Acc 3; Dec 3; Hand –1; Stealth 8; Fuel 150.

High-g hardsuit: The basic design of this powered armor is very similar to that of a combat hardsuit. Rugged servos and reinforced structure are optimized to provide support in heavy gravity. This provides the benefits of High-G Tolerance, though it does not stack with the feat. The rigid construction is somewhat more restrictive than a normal combat hardsuit, however, and it can be hard to use without experience. It otherwise provides all the same benefits and abilities of a combat hardsuit.

Jangala hardsuit: This useful powered armor is handy in heavily forested or jungled areas. Jangala units equipped with power generators and sniper rifles can survive for long periods in the field. Sometimes called Ghost Squads, these units can inflict considerable terror campaigns on less well-equipped troops.

The jangala hardsuit is equipped with highly responsive servos and is very light. Its advanced technology increases the cost significantly. Though it does not provide the same protection as other hard-



suits, it offers unparalleled response and handling. The articulated arms and legs are both equipped with flexible grippers that closely resemble clawed mechanical hands. The feet are controlled through a subprocessor, which takes some getting used to.

A character in a jangala can climb easily and hold a position in trees or on a cliff face. The hardsuit is lighter than even a combat hardsuit, but the design allows for integral (though externally mounted) weaponry. The mechanical hands are still nimble enough to allow for normal use of weaponry, however. The servos of a jangala give an effective Strength 18, with batteries providing enough power for 48 hours of continuous operation. When traveling continuously, the servos assist, allowing the wearer to hustle for up to 4 straight hours without rest.

The jangala provides the wearer a speed of 40 ft., and the character gains a climb speed of 20 ft. Forest and jungle terrain are considered equivalent to rough scrub for movement purposes. The suit does not provide sealed capabilities, though such suit modifications can be added (add the cost and size of a hostile environment suit or a vacuum suit). A jangala hardsuit provides a hardness of 5, and this protection applies to the wearer.

The sensor suite includes the capabilities of digital binoculars, maser sight, personal communicator, and digital mapbox. Sensor processing is adapted for jungle conditions. Any target's concealment due to foliage is considered one level less. The jangala also integrates the capabilities of an intrusion suit, providing a +4 circumstance bonus to Hide checks from both normal and IR sensors. There are jangala suits designed for vacuum operation, able to clamber through dense tangles of steel or other materials while in freefall. These have slightly different capabilities.

This is powered armor, with all the standard penalties. However, the suit provides a +8 circumstance bonus on Climb checks. In addition, a character with the Armor Proficiency (Powered) feat eliminates the armor check penalty for Balance, Climb, Hide, Jump, and Move Silently checks. Vacuum-adapted versions do not eliminate the armor check penalty for Jump, but do for Freefall.

Military vac suits: Military vacuum suits are available in a number of varieties. The Legionnaire military philosophy is that vac suits should have a long deployment time and the capacity for powered thrust. Other designs, with little air capacity and reliance on external vehicles, have repeatedly demonstrated problems in battlefield conditions. Though the engine is purchased separately, these suits are designed with ports and adapters. Removing or attaching an engine is no more difficult than removing or donning medium armor.

Class I vac suits are the closest to the standard vac suit, though more rigid and somewhat larger due to gels and polymer armoring. The back has a number of adapters, and most Class I vac suits come with datapads and IO interfaces built into the helmet.

Class II vac suits are built on an assault exoskeleton, modified to seal against vacuum. They have sufficient air for 30 hours.

Class III vac suits have many of the same characteristics as Class II suits, but they are internally powered. Their servos provide an augmented Strength of 20, and these suits often double as informal landing units. They are often provided with highly maneuverable suitpacks.

Class IV vac suits could almost be classified as spacecraft. A Class IV is capable of 40 hours of operation. Missiles and lasers are the most common integrated weapons. This powered armor is maneuverable and sturdy, providing a Strength of 22. The display offers a personal communicator, digital binoculars, laser sight, digital mapbox, a datapad, and navigational software. The suit also provides a hardness of 10, and this protection applies to the wearer.

Rover hardsuit: This powered armor is designed for expeditionary military units. They see service in deserts, frozen tundra, and wherever units have to operate in harsh climates. The suits are built much like a combat hardsuit, with enhanced environmental protection. The batteries last for 72 hours, and the suit can function self-contained for 48 hours. Most forward squads have recharging generators so they can operate for longer periods away from a home base.

Vulcan suit: This suit is made of the same material as Vulcan gloves. They are used around hazardous spills or foundries. Vulcan suits are typically worn around a sealed environment suit. An external sensor is required to transmit visual information to the occupant. A Vulcan suit can be fitted with a visor, but this halves the protections it provides. A Vulcan suit offers 30 points of protection each round from acid, cold, electricity, or fire. If the suit takes more than 100 point of damage, it is rendered ineffective.

CHAPTER THREE

ROBOTS

ROBOT MODELS

These models use the standard rules for chasses and programming found in the *Starfarer's Handbook* (see page 115).

AQUATIC ROBOT

These standard, torpedo-shaped robots are found in many underwater settlements and facilities. They provide useful reconnaissance as well as basic labor. While not as effective as loading robots or recon drones, aquatic robots are valued for their versatility. Extendable legs help stabilize them, particularly when moving equipment. Manipulators allow them to pick up equipment, set up machinery, and perform maintenance tasks. Note that the ground speed listed is out of water. The aquatic robot can walk underwater at half the listed rate.

The porpoise robots are more advanced. With AI and personality modules, these gregarious robots eagerly help their sentient masters. They are adaptable, at least by robotic standards, and can be pleasant companions. Drow and some other races prefer to refit military robots for undersea use.

Standard Aquatic Robot Exp1: CR —; Medium-size Construct; HD 2d10; hp 11; Init +0; Spd 50 ft., swim 40 ft.; AC 10; Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref +0, Will +2; Str 12, Dex 10, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Disable Device, Hide, Intuit Direction, Knowledge (oceanography), Listen, Move Silently, Navigate, Search, Spot, Use Device.

Skills: Balance +0 (+2 with legs), Climb +1 (+3 with legs), Disable Device +3, Hide +3, Intuit Direction +2, Knowledge (oceanography) +3, Listen +5, Move Silently +3, Navigate +5, Search +6, Spot +9, Use device +3.

Feats: Skill Focus (Spot), Technical Proficiency.

Upgrades: Aquatic adaptation, enhanced Dexterity +2, improved audio sensors, improved visual sensors, language module (Common), manipulators, multiple legs, personal communicator, 5x pressure adaptation (comfortable dive depth limit of 330 ft. in standard pressure and gravity), storage compartment, streamline, transform conversion, 2 UV sensors, water jet.

Possessions: None.

Cost: 11,210 cr.

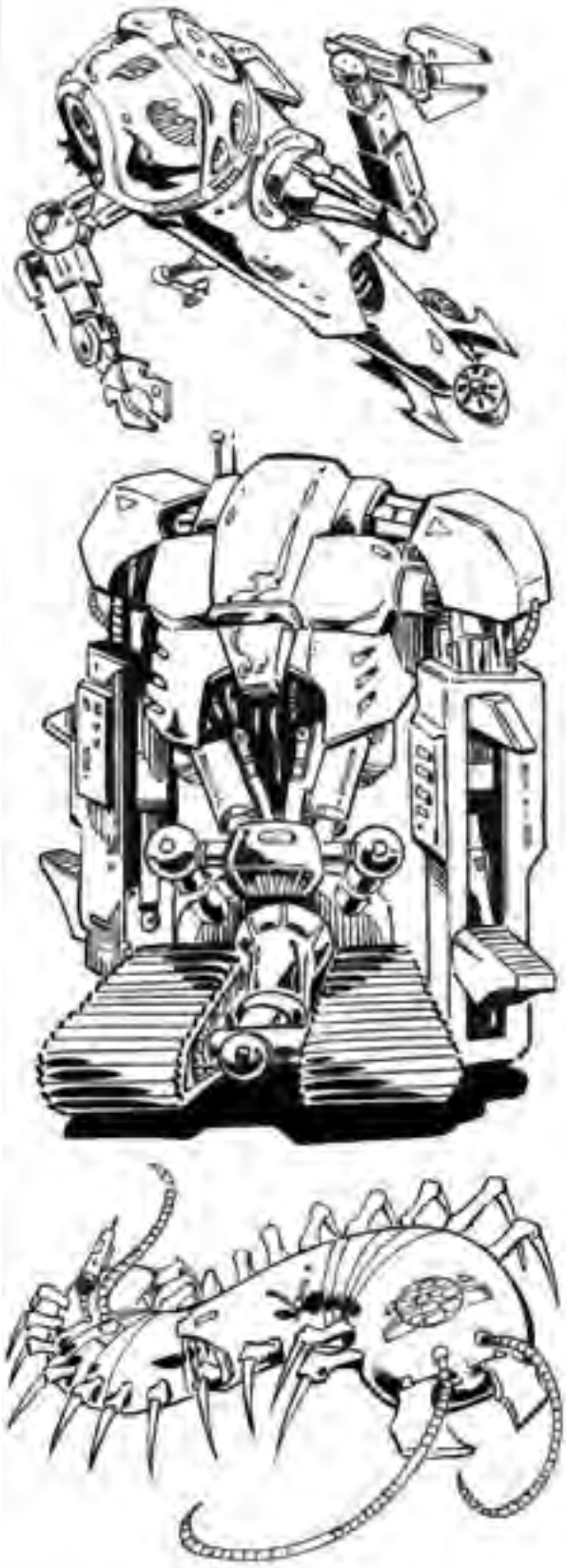
Porpoise Robot Exp3: CR 5; Medium-size Construct; HD 2d10 plus 3d6 (Exp); hp 24; Init +2 (+2 Dex); Spd swim 40 ft. (jets), swim 60 ft. (screws); AC 16 (+4 natural armor, +2 Dex); Atk +3 melee (1d6+1, slam) or +4 ranged (2d6, screamer pistol); SQ Construct, low-light vision, ambidexterity; AL N; Fort +1, Ref +3, Will +3; Str 12, Dex 14, Con —, Int 12, Wis 10, Cha 10.

Class Skills: Disable Device, Hide, Intuit Direction, Knowledge (oceanography), Listen, Move Silently, Navigate, Search, Spot, Use Device.

Skills: Disable Device +3, Hide +6, Intuit Direction +5, Knowledge (oceanography) +4, Listen +6, Move Silently +10, Navigate +8, Search +6, Spot +10, Use device +6.

Feats: Skill Focus (Move Silently), Skill Focus (Spot), Technical Proficiency.

Upgrades: AI module, aquatic adaptation, combat module, enhanced Dexterity +6, improved audio sensors, improved visual sensors, integral internal minicell (150 charges, 5 lb.), integral internal screamer



pistol, language module (Common), manipulators, multiscanner, natural armor +4, personal communicator, personality module, 5x pressure adaptation (comfortable dive depth limit of 330 ft. in standard pressure and gravity), storage compartment (only 5 lb. available), streamline, transform conversion, 2 UV sensors, water jet, water screws.

Possessions: 150 screamer pistol charges, dampsuit (+5 circumstance bonus to evading sonic detection).

Cost: 40,405 cr.

Cargo Handler

These are the most common robot models. Capable of following rather simple instructions, they load and unload cargo containers. Handlers can also transport goods but are not built for great speed. Larger models exist, particularly for ship loading. Cargo handlers are designed to work well with fixed instructions but are also programmed to understand nuances. Balancing customs and safety regulations, instructions from sentient beings, and coordinating with one another, cargo handlers are vital resources on loading docks throughout the Empire.

These robots are ruggedly built, with much of their programming focused on movement. They are able to anticipate and can react well to shifting loads. Combat programming is sometimes installed, to give the handlers a useful sense of self-preservation.

Standard cargo handlers can carry loads of up to 1,000 lb. Heavier loads require larger robots or loading machines. Cargo handlers are programmed to operate loading equipment, making them capable of handling almost any container.

Loading Robot Exp1: CR —; Medium-size Construct; HD 2d10; hp 11; Init +0; Spd 50 ft.; AC 10; Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref +0, Will +2; Str 18, Dex 14, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Balance, Climb, Freefall, Jump, Knowledge (physics), Profession, Search, Sense Motive, Spot, Use Device.

Skills: Balance +8, Climb +10, Freefall +6, Jump +5, Listen +4, Knowledge (physics) +3, Profession (cargo handling) +4, Search +5, Sense Motive +2, Spot +6, Use Device +3.

Feats: Alertness, Technical Proficiency.

Upgrades: Enhanced Dexterity +6, enhanced Strength +6, improved audio sensors, improved visual sensors, language module (Common), magnetic grippers, manipulators, multiple legs, personal communicator.

Possessions: None.

Cost: 13,330 cr.

Drone Pilot

A drone pilot is the same basic construction as an autonomous pilot, but it is specialized for combat. Typically, drone pilots are loaded into small, fast attack craft. Though typically unable to travel far, they provide useful support and defense.

The drone uses the expert class rather than the warrior. Though the warrior program base has a slightly better attack ability, it lacks a lot of the breadth and skill that a pilot requires. Some drone pilots are adapted for gunnery, with appropriate feats.

Drone Pilot Exp3: CR 3; Tiny Construct; HD 1/2d10 plus 3d6 (Exp); hp 15; Init +1 (Dex); Spd —; AC 7 (+2 size, –5 immobile); Atk +6 ranged (ship weapons); SQ Construct, low-light vision, ambidexterity; AL N; Fort +1, Ref —, Will +3; Str 4, Dex 18, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Cryptography, Disable Device, Intuit Direction, Knowledge (astronomy), Knowledge (mathematics), Knowledge (physics), Navigate, Pilot, Profession, Use Device.

Skills: Cryptography +4, Intuit Direction +5, Knowledge (astronomy) +4, Knowledge (mathematics) +3, Knowledge (physics) +6, Navigate +9, Pilot +10, Profession (pilot) +6, Use Device +7 (+9 if starcasting).

Feats: Aircraft/Starship Piloting, Combat Ace, Technical Proficiency.

Upgrades: Combat programming, enhanced Dexterity +6, language module (Common), IO neural net tap, personal communicator, sessile.

Possessions: Computers and electronics datachip (+2 circumstance bonus for Use Device skill checks), navigation datachip (+20 circumstance bonus when navigating in known space), datapad, decryption datachip (+10 circumstance bonus for breaking encryption), encryption datachip (+20 circumstance bonus for encoding data).

Cost: 18,700 cr.

Guntower

Military units often have a need for fixed gun emplacements. While pilot brains are adequate, the guntower design provides a great amount of accuracy and firepower in a tough package. The need for a stationary fire point means that large robots provide a distinct advantage. While normally the immobility of these robots is a severe liability, in this case mass is more valuable.

Though unmoving, guntowers do not have the sessile modification, but rather have a specialized digging apparatus integrated into their base. These spadelike legs quickly burrow a short distance into the ground, and the robot mixes quickcrete into the earth. The mixture solidifies into a rocklike foundation. The process is reversible, so the guntower emplacement can be reclaimed or moved. This design provides a standard +4 cover bonus to AC, which almost makes up for the lack of mobility. The tower can still swivel to train its guns.

Cables are usually run from guntowers to central generators, affording them a continuous supply of energy. Internal magazines provide some ammunition in the event the cable is cut. The towers are equipped with three weapons. The plasma rifle is primary, capable of striking with devastating force. The rocket launcher and assault laser are intended as last-ditch weapons if the power cable is cut. The rockets are also useful against bunched opponents.

Guntowers, though potent, must be part of a battle strategy. Without mobile units to support them, they are vulnerable to attack. Missiles can strike from well beyond the guntower's normally formidable range. Multiple attackers striking at once can quickly overwhelm these robots.

Guntower Robot War6: CR 7; Huge Construct; HD 8d10 plus 6d8 (War); hp 74; Init +0; Spd —; AC 17 (–5 immobile, –1 size, +3 natural, +10 armor); Atk +7/+2 ranged (5d10, plasma rifle) or +7/+2 ranged (3d10, assault laser) or +7/+2 ranged (6d8, HE rocket); SQ Construct, low-light vision, ambidexterity, DR 10/—; AL N; Fort +7, Ref —, Will +2; Str 28, Dex 10, Con —, Int 12, Wis 10, Cha 8.

Skills: Listen +6, Search +6, Spot +7.

Feats: Far Shot, Point Blank Shot, Rapid Shot, Technical Proficiency.

Upgrades: 360 degree vision, AI module, combat programming, darkvision, enhanced Dexterity +6, improved audio sensors, improved visual sensors, integral laser sight, integral external plasma cannon (powercable), integral internal assault laser, integral internal assault laser minicell (20 + powercable), integral internal multishot rocket launcher, integral multishot magazine (4), language module (Common), motion sensors, natural armor +10, multiscanner, reinforced construction DR 10/—, personal communicator, storage compartment (50 lb., 25 lb. taken up by internal magazines), telescopic vision.

Possessions: None.

Cost: 117,755 cr.

PILOT ROBOT

The so-called "pilot-in-a-box," these robots are common among freighters and other long-running ships. Unmanned probes often consist of a robotic pilot and one or more technical robots. Compared to living beings, robots take up little space or resources. Some larger ships use these robots as backups, in case the crew is incapacitated. More advanced models exist, depending on the value of the ship.

Comparing robots to sentient pilots favors the latter at about 4th level. The cost and maintenance of such a robot is close to a pilot's yearly salary. At higher levels, the savings in life support and other costs is not as significant as the high cost of the robot's programming. Advanced ship brains are only used for missions that sentient beings would not or could not handle. Pilot boxes are mainly used for ground vehicles or routine use of small aircraft and spacecraft. These latter versions replace the Skill Focus feat for Aircraft Piloting or Starship Piloting. These have the primary advantage of being quite cheap. The autonomous pilot is by far the most common robotic pilot. It is reliable, though it does not handle deception or unusual circumstances well. Combat programming helps the AP avoid danger.

Some soulmechs opt for the autonomous pilot design. It costs less than the chassis they normally use, while giving them effectively an entire ship as their body. Soulmech pilots sometimes embrace this life completely, feeling no loss of their more humanoid existence. This is a strange form for a soulmech, so the character suffers a –4 penalty on actions until the soulmech adjusts.

Pilot Box Exp1: CR —; Tiny Construct; HD 1/2d10; hp 2; Init +1 (Dex); Spd —; AC 7 (+2 size, –5 immobile); Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref +1, Will +2; Str 4, Dex 12, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Cryptography, Disable Device, Intuit Direction, Knowledge (astronomy), Knowledge (mathematics), Knowledge (physics), Navigate, Pilot, Profession, Use Device.

Skills: Cryptography +3, Intuit Direction +2, Knowledge (astronomy) +4, Knowledge (mathematics) +3, Knowledge (physics) +4, Navigate +5, Pilot +8, Profession (pilot) +4, Use Device +5.

Feats: Skill Focus (Pilot), Technical Proficiency.

Upgrades: Language module (Common), IO neural net tap, personal communicator, sessile.

Possessions: Navigation datachip, encryption datachip, datapad.

Cost: 4,000 cr.

Autonomous Pilot Exp2: CR 2; Tiny Construct; HD 1/2d10 plus 2d6 (Exp); hp 12; Init +1 (Dex); Spd —; AC 7 (+2 size, –5 immobile); Atk +2 ranged (ship weapons); SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref —, Will +3; Str 4, Dex 12, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Cryptography, Disable Device, Intuit Direction, Knowledge (astronomy), Knowledge (mathematics), Knowledge (physics), Navigate, Pilot, Profession, Use Device.

Skills: Cryptography +3, Intuit Direction +5, Knowledge (astronomy) +4, Knowledge (mathematics) +3, Knowledge (physics) +4, Navigate +8, Pilot +6, Profession (pilot) +5, Use Device +6 (+8 if starcasting).

Feats: Aircraft/Starship Piloting, Technical Proficiency.

Upgrades: Combat programming, language module (Common), IO neural net tap, personal communicator, sessile.

Possessions: Computers and electronics datachip (+2 circumstance bonus for Use Device skill checks), navigation datachip (+20 circumstance bonus when navigating in known space), datapad, decryption datachip (+10 circumstance bonus for breaking encryption), encryption datachip (+20 circumstance bonus for encoding data).

Cost: 10,100 cr.

POCKETDOC

These robots are common on most ships or bases with minimal crew. They combine basic repair and medical skills and are fairly cheap. While their abilities are limited, help by a pocketdoc can keep a ship or person going until better help can be found. PocketDocs resemble millipedes, a design that allows them to get into tight spaces on a ship and also be easily carried. When not active, they roll up into tight disks. A need for constant robotic help usually favors purchasing separate medical and technical robots. When the need is infrequent or unpredictable, some agencies prefer having multiple pocketdocs.

PocketDoc Exp1: CR —; Tiny Construct; HD 1/2d10; hp 2; Init +1 (Dex); Spd 60 ft.; AC 13 (+2 size, +1 Dex); Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref +1, Will +2; Str 4, Dex 12, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Disable Device, Heal, Knowledge (biology), Knowledge (chemistry), Listen, Profession, Repair, Search, Spot, Use Device.

Skills: Heal +7, Knowledge (biology) +4, Knowledge (chemistry) +4, Listen +1, Profession (mechanic) +2, Profession (pharmacist) +3,

Profession (surgeon) +3, Repair +5, Search +2, Spot +2, Use Device +3.

Feats: Skill Focus (Heal), Technical Proficiency.

Upgrades: Integral toolkit (basic, electronics, robotics), language module (Common), medical package, magnetic grippers, multiple legs, personal communicator.

Possessions: Low-light lantern.

Cost: 5,020 cr.

Slaver Unit

Illegal in most areas of the Empire, some fear that use of these robots could spread under the reign of Asamet. There are three types of units. The first is a headpiece that locks into place around the skull of the slave. It has visual and auditory sensors and relays this information to a central unit. The headpiece is capable of delivering incapacitating pain (–5 circumstance penalty on all actions), or stunning, knocking unconscious, or killing (deals 20 points of damage per round) the subject. In each case, a Fortitude save (DC 25) is needed to avoid the effect.

The central unit is capable of monitoring up to six headpieces per round. Each headpiece stores a few seconds of sensory information and relays it when signaled. With more than six headpieces, there is only a chance of a given unit being monitored. If 12 headpieces are slaved to the central unit, there is a 50% chance that a headpiece is being monitored. This may shift depending on circumstance. A distraction can increase the odds that a given unit is or is not monitored. Headpieces can be controlled up to 10 miles from the central unit. Relays may be placed to extend this as needed.

A character can attempt to disguise actions with Bluff, Innuendo, or Perform checks. This is opposed by the central unit's Sense Motive skill. A signal jammer can prevent communication between headpieces and the central unit. In this case, the headpieces are only capable of reacting to tampering and removal, not sensory information. If a headpiece is damaged or pulled from a slave, it may trigger one of the punishment effects, depending on the last settings sent by the central unit. In some cases, it may simply knock out the character. If a slave raid is suspected, it may be set to kill the character.

The third type of unit is more expensive, which is why it is less common. There is still a headpiece, but it is connected directly to a long, flat central unit that clings tightly to the slave's back. More advanced models have neural taps (same cost as full neural net tap upgrade), allowing them to monitor thoughts directly.

Headpiece: CR —; Tiny Construct; HD 1/2d10; hp 2; Init +1 (Dex); Spd —; AC 7 (+2 size, –5 immobile); Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref —, Will +0; Str 4, Dex 12, Con —, Int 12, Wis 10, Cha 8.

Skills: Listen +2, Search +3, Spot +2.

Feats: None.

Upgrades: 360 degree vision, improved audio sensors, improved visual sensors, remote operation unit, sessile, specialized medical package (cause various conditions).

Possessions: None.

Cost: 2,130 cr.

Slaver Central Unit Exp3: CR 3; Tiny Construct; HD 1/2d10 plus 3d6 (Exp); hp 15; Init +1 (Dex); Spd —; AC 13 (+2 size, +1 Dex); Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref +1, Will +2; Str 4, Dex 12, Con —, Int 12, Wis 10, Cha 10.

Class Skills: Cryptography, Gather Information, Intimidate, Innuendo, Listen, Profession, Search, Sense Motive, Spot, Use Device.

Skills: Cryptography +2, Gather Information +4, Innuendo +5, Intimidate +4, Listen +8, Profession (slaver) +3, Search +9, Sense Motive +8, Spot +8, Use Device +2.

Feats: Remote Operation, Skill Focus (Sense Motive), Technical Proficiency.

Upgrades: 360 degree vision, combat programming, improved audio sensors, improved visual sensors, internal datapad, language module (Common), personal communicator, personality module, sessile.

Possessions: None.

Cost: 16,110 cr.

Social Robot

This robot, with several variations, is useful in many service roles. It can function as a mobile information kiosk, as a robotic petty officer, or provide individual attention. A social robot's loyalty and attention is unwavering, and it has few of the needs of other beings. Most of these robots are adapted to specific roles. A diplomatic aide, for example, may have appropriate Knowledge or Profession skills. Such robots are also used for entertainment, capable of singing, dancing, mixing drinks, or other useful skills. Highly placed officials often rely on closely monitored social robots to prepare their meals.

Some social robots are designed to function much like humans. This work ranges from health care to prostitution. These robots typically have Disguise, to enhance the illusion of an organic form. With expressive eyes, indirect vision, and lifelike upgrades, they cost 1,450 cr more than the standard model. There are also popular MIPets (Machine Intelligence Pets), which feature a small body designed to look like an animal and a suitable personality. These models cost 250 credits less than the standard design.

With their neural net tap and personal communicator, social robots can rapidly search for relevant information. They may also access a wide variety of software as they need it, paying the standard one credit per hour.

Social Robot Exp1: CR —; Medium-size Construct; HD 2d10; hp 11; Init –1 (Dex); Spd 40 ft.; AC 9 (–1 Dex); Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref –1, Will +2; Str 12, Dex 8, Con —, Int 12, Wis 10, Cha 10.

Class Skills: Appraise, Bluff, Freefall, Innuendo, Knowledge (Local), Listen, Perform, Profession, Research, Sense Motive.

Skills: Appraise +3, Bluff +2, Freefall +1, Innuendo +2, Knowledge (Local) +5, Listen +4, Perform +4, Profession (information support) +4, Research +2, Search +3, Sense Motive +7, Spot +2.

Feats: Skill Focus (Sense Motive), Technical Proficiency.

Upgrades: AI module, biosynthetic conversion, improved audio sensors, improved visual sensors, language module (Common), language module (Draconic), IO neural net tap, personal communicator, personality module.

Possessions: None.

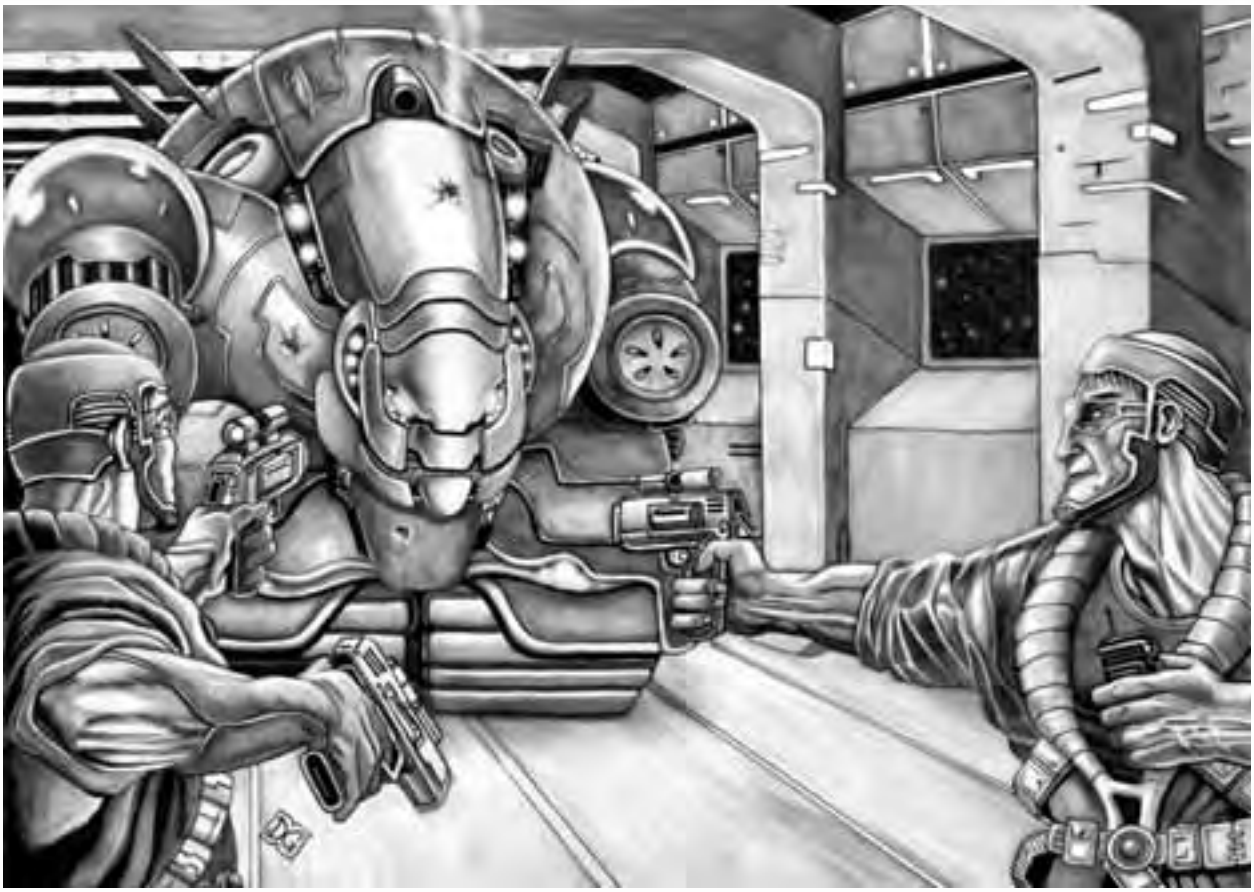
Cost: 13,010 cr.

Spider Sentry

The ISPD and other high-level security agencies employ small arachniform robots to undertake routine sentry duties. The creatures scurry around, moving their one-foot-diameter bodies with eight spindly, mechanical legs. Magnets on their feet allow them to climb metal walls, maintenance ducts, and other crawl spaces where they can hide and surreptitiously monitor nearby activity.

Security operators usually deploy a squad of spider sentries to guard certain areas. Integrated personal communicators allow the linked sentries to update each other on comings and goings of those they spot, and make frequent reports back to the security operators working from a centralized control station. With this link they can interface with facility computers to remotely check the identities of those passing before their sensors, scan authorization badges, and log in activity they monitor for future reference.

Spider sentries have no immediate means of



defense other than alerting their controllers that someone in their sector is attacking them. A small siren alarm built into their body sounds in obvious cases of emergency (fire, attack, explosions), though this only alerts those in the immediate vicinity.

The ISPD often programs or modifies spider sentries for more aggressive work as spies, trackers, and saboteurs. The small robots are ideal for surreptitious operations, large enough to hold their own and manipulate devices while still using their small size to conceal their presence, especially amidst machinery and technical environments.

Spider Sentry Exp3: CR —; Small Construct, HD 1/2d10; hp 2; Init +1 (Dex); Spd 60 ft.; AC 13 (+2 size, +1 Dex); Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +1, Ref +2, Will +3; Str 4, Dex 12, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Climb, Disable Device, Hide, Jump, Listen, Move Silently, Open Lock, Search, Spot, Use Device.

Skills: Climb +7, Hide +7, Jump +5, Listen +8, Move Silently +7, Open Lock +3, Search +7, Spot +8, Use Device +4.

Feats: Awareness, Technical Proficiency, Track.

Upgrades: 360° vision, darkvision, improved audio sensors, improved visual sensors, magnetic grippers, multiple legs, personal communicator.

Cost: 12,510 cr.

Standard Repair Multiunit

This type of robot is found all over the Empire. Every station and ship that can afford it purchases at least one. There are numerous components on a vehicle or station that are inaccessible to humans or humanlike robots. Getting at these components requires disassembling the hull or bulkheads. Tiny robots are able to get into these areas but often lack the sophistication and tools to operate effectively.

The best combination is a swarmed unit. A cluster of robots can operate in narrow spaces. Each, with specific tools, can contribute to the execution of needed repairs. Though more than twice the cost of a technical robot, a multiunit's abilities are on par and it can save significant amounts of time. The individual units are fast and able to range all over a ship.

The standard multiunit comes with an electronics and mechanics toolkit. It is typically sold with three replacement units, increasing the cost 50%.

Individual Repair Robot Exp2: CR —; Tiny Construct; HD 1/2d10; hp 2; Init +1 (Dex); Spd 60 ft., fly 50 ft. (good); AC 13 (+2 size, +1 Dex); Atk—; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref +1, Will +3; Str 4, Dex 12, Con —, Int 12, Wis 10, Cha 8.

Trio Repair Robot Exp2: CR —; Small Construct; HD 1d10; hp 5; Init +0; Spd 50 ft., fly 40 ft.; AC 11 (+1 size); Atk—; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref +0, Will +3; Str 8, Dex 10, Con —, Int 12, Wis 10, Cha 8.

Total (6) Repair Robot Exp2: CR —; Medium-size Construct; HD 2d10; hp 11; Init –1 (Dex); Spd 40 ft.; AC 9 (–1 Dex); Atk—; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref –1, Will +3; Str 12, Dex 8, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Craft, Disable Device, Listen, Freefall, Open Lock, Profession, Repair, Search, Spot, Use Device.

Skills: Craft (electronics) +6, Disable Device +3, Listen +2, Freefall +2, Open Lock +3, Profession (engineer) +4, Repair +9, Search +3, Spot +3, Use Device +6.

Feats: Skill Focus (Repair), Technical Proficiency.

Upgrades: Hoverlift (only operational at Small or Tiny size), integral toolkit (basic, electronics, mechanics, robotics), language module (Common), magnetic grippers, multiple legs, personal communicator, storage compartment, transform conversion.

Possessions: Low-light lantern.

Cost: 16,150 cr.

Vent Drone

Although engineers can maintain and repair many technical systems society depends on throughout the Dragon Empire, they can't always reach through the narrow spaces, tight maintenance crawlways, and access ducts leading to the scene of various mechanical problems. Arachiform vent drones are small and flat enough to scurry through these slight areas to reach machinery that requires repair or maintenance.

The simple robots respond to simple voice commands (in person or through a personal communicator attuned to their operational frequency) to rush about effecting repairs, conducting routine maintenance, and spotting technical problems before they turn into true disasters. Some more sophisticated teams of vent drones work in tandem with the computers that run larger systems, particularly those of starships. Their primary mission is to preserve and maintain technology, not destroy it. However, on occasion they must circumvent various mechanical measure to carry out their duties: disabling the lock on a protective grille, drawing power from a less important system to maintain a more vital one, and temporarily rerouting security systems to avoid unnecessary false alarms. While they are simple robots, vent drones are obedient to their owners and their commands.

Vent Drone Exp2: CR —; Small Construct, HD 1/2d10; hp 2; Init +1 (Dex); Spd 50 ft.; AC 13 (+2 size, +1 Dex); Atk —; SQ Construct, low-light vision, ambidexterity; AL N; Fort +0, Ref +1, Will +3; Str 4, Dex 12, Con —, Int 12, Wis 10, Cha 8.

Class Skills: Climb, Disable Device, Knowledge (Physics), Intuit Direction, Listen, Move Silently, Open Lock, Repair, Spot, Use Device.

Skills: Climb +3, Disable Device +5, Intuit Direction +2, Listen +3, Move Silently +4, Open Lock +5, Repair +8, Spot +3, Use Device +8.

Feats: Gearhead, Technical Proficiency.

Upgrades: 360° vision, darkvision, integral toolkit, magnetic grippers, manipulators, multiple legs, personal communicator

Cost: 8,570 cr.

Robot Upgrades

Adaptations

Soulmechs and robots are designed to function under a wide range of conditions. Long exposure to extreme environments still has detrimental effects. A robot designed for space work does not function well when placed underwater for long periods of time.

Operating in an environment for which a robot is not adapted requires a daily Fortitude save (DC 10, +1 per previous check) to avoid 1d4 points of damage. These conditions may include submersion in water, being subjected to very high-pressure atmospheres, and standard conditions of extreme heat and cold.

Robots and soulmechs can wear protective suits or coverings. Adaptation upgrades integrate protection into the chassis itself.

Atmosphere: Standard robotic chasses have this upgrade. Some robots meant for vacuum or aquatic use are optimized for those environments, lacking atmospheric capabilities. Robots lacking this adaptation treat thin or greater atmospheres as two levels higher. Normal pressure effects apply.

A robot or soulmech that lacks atmospheric adapta-

ROBOTIC UPGRADES

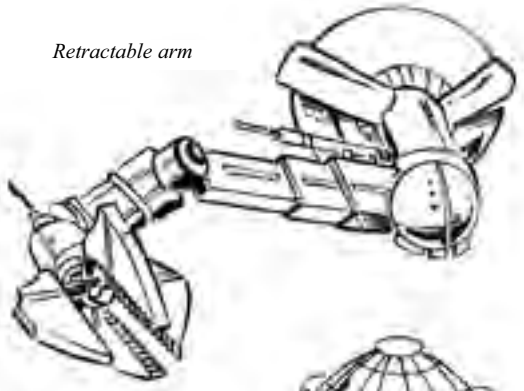
Upgrade	Cost	XP Cost
Adaptation		
Atmospheric	100 cr	50
Aquatic	250 cr	125
Corrosive	100 cr	50
Pressure	100 cr	50
Thermal	250 cr	125
Vacuum	1,200 cr	600
Expressive eyes	200 cr	100
Flexarm	1,000 cr	500
Full shutdown	50 cr	25
Indirect vision	500 cr	250
Inducted hover	2,000 cr	1,000
Integral magazine	4 cr/lb.*	2/lb.*
Internal auditory IO	10 cr	5
Internal datapad	300 cr	150
Lifelike	750 cr	275
Microjet	2,000 cr	1,000
Morphic design	500 cr	250
Natural armor	*	*
Neural net tap		
I or O	1,000 cr	500
IO	1,750 cr	875
Full	2,500 cr	1,250
Self destruct	*	*
Sensor upgrade	*	*
Sessile	–250 cr	125
Specialized design	320 cr	160
Spell relay	1,000 cr	500
Streamline	800 cr	400
Swarm	2x*	2x
Visual data overlay		
Basic	5 cr	2
Advanced	50 cr	25
Water jet	1,500 cr	750
Water screws	1,000 cr	500

tion gets to deduct its cost from the total cost of upgrades (including XP cost). Later, the adaptation can be installed at normal price.

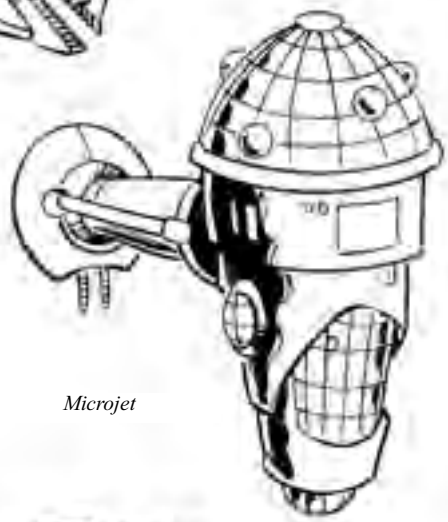
Aquatic: Water pressure is adequately handled by the pressure adaptation. However, water also contains minerals and living organisms. Aquatic exposure only occurs if the robot is at least half submerged in water. The aquatic adaptation seals vital components, preventing exposure damage.

Corrosive: Some atmospheres or liquids are corrosive. Components need to be protected from these substances to a degree beyond that of other adaptations. This adaptation provides integrated protection from corrosive environments equivalent to a hostile environment suit. This does not protect against concentrated acids or acid attacks, only environmental effects. It also does not protect against exposure to water.

Pressure: Robotic and soulmech chasses can withstand dense atmospheric pressures (up to five atmospheres) before suffering ill effects. Underwater, pressure increases by one atmosphere for every 33 feet of



Retractable arm



Microjet

Waterjet

Water screws

depth (this is multiplied by gravity). Each high-pressure upgrade decreases the effective pressure on the robot by one atmosphere (to a minimum of one).

Above five atmospheres of pressure, a normal robot makes an hourly exposure check, as described above. Ten or more atmospheres require an exposure check every minute. At 20 atmospheres or greater, a missed Fortitude save means the robot starts imploding, taking 10d6 points of damage per round.

Pressure adaptations are common to aquatic robots. They are also included in robots that work on planets with thick atmospheres.

Thermal: While most robots are resistant to extreme temperatures, they can be vulnerable to damage from long-term exposure to extreme heat. Robots are generally designed to function in temperatures up to 140° F. Higher temperatures deal normal damage, rather than subdual damage, and can therefore affect robots. Each thermal adaptation purchased increases the robot's maximum operating temperature by 20°.

Vacuum: Space makes unique demands on equipment. In a vacuum, metals can weld together and huge temperature fluctuations can occur. There is also a greater risk of exposure to damaging stellar radiation. This adaptation seals vital circuits and enables heat to transfer effectively throughout the chassis. It also provides minimal radiation shielding and small amounts of heat when needed. The robot is protected against vacuum, depressurization, repressurization, and thermal irregularities. A robot without this adaptation makes a dailly exposure check, as described above, when in a vacuum.

UPGRADES

Expressive eyes: This upgrade replaces the robot's electronic sensors with imaging devices capable of humanlike expression. This upgrade makes the robot or soulmech appear much more lifelike and organic. This affords a soulmech or robot with the biosynthetic conversion a +2 circumstance bonus on Charisma-related skill checks. However, the prioritizing of appearance over function in the design means that robots and soulmechs with this upgrade lose their low-light vision.

FlexArm: Some robotic tasks require a delicate and precise touch that robots and soulmechs are not normally designed for. A flexarm is a single limb, about as long as an adult human's arm. It has a tough, gel-like surface that can contract or expand, allowing the limb to triple its length. The manipulator at the end of the arm is composed of numerous small instruments, a collection of spikes, spines, and fibers varying in size and thickness. All can retract independent-

ly into the arm and the arm can close around them.

A flexarm serves as a foundation for internal toolkits, integrating them into one package. The gel has a hardness of 14, and the entire arm has 20 hit points (or 1/5 of the robot's total hit points, whichever is less). The flexarm is also covered with sensors, integrated into the robot's normal visual processing. The arm comes with a dim light, but the sensors are focused on fine tasks and have a visual range limited to a few feet.

Even without toolkits, the arm has basic manipulators. Any task that can be done with a light touch can be performed with the flexarm. In addition, the robot is able to work and see details at 100x magnification by probing with the flexarm's sensors.

The flexarm increases any circumstance bonuses from toolkits by +1, so long as fine, detailed work is important to the task. It also allows the robot to operate a body length or two away from the work. The arm can also snake into hard to reach spaces.

Full shutdown: Robots are able to switch between various activity levels. A robot can power down completely, leave some processing active, and so forth. Soulmech neural nets have requirements and a level of complexity that makes it difficult to do this.

The full shutdown upgrade is intended mainly for soulmechs that may be stranded for long periods of time. It allows the character to go into a long-term period of inactivity. Shutdown can be triggered by a few minutes of mental focus or tied to a datapad program. This program can trigger the shutdown as a response to signals or sensor data. In any case, it takes a few minutes to shut down.

Recovery from full shutdown can be set on a timer, a signal, or other control devices. The recovery can be triggered by another character. This requires a complex Repair skill check (DC 25). Recovering from a shutdown takes five to 10 minutes, during which the character is considered stunned. Once recovered, the soulmech is treated as fatigued for one hour until all systems are fully online.

Indirect vision: This processor allows a robot or soulmech to effectively integrate vision from secondary sensors. This restores the low-light vision capability of a robot with expressive eyes.

Inducted hover: Hoverlifts are handy, but they do not function in vacuum. This upgrade induces a magnetic field that provides lift for the robot. It allows flight at normal speed, so long as the robot is within five feet of a metallic surface. Like the hoverlift, this system only works on Tiny or Small robot chasses. The design must be either spherical or disc-shaped. This system works well in vacuum, atmosphere, or underwater. Outside of buildings or ships, track systems are often built for robots with this upgrade.

Integral magazine: An internal magazine takes up space that would otherwise go toward a storage compartment, and the same limits apply. External magazines are limited by the carrying capacity of the robot. The magazine's ammunition is connected to one or more integral weapons. An external magazine may connect to an integral weapon. Power cells may also be integrated.

The effective weight of an integral magazine is double whatever the magazine or power cell normally weighs. The cost is 4 cr multiplied by the total weight. The magazine, once installed, is empty. Ammunition must be procured separately. Propellant for projectile weapons is included in the normal cost. Sufficient propellant space for five times the magazine capacity is assumed.

For example, a 15-round shotgun magazine weighs 1 1/2 lb. This weight is doubled, for a total weight of 3 lb. This gives the integral shotgun magazine a cost of 12 credits. An integral magazine with a capacity of 150 rounds would cost 120 credits and weigh 30 lb. This integral magazine could be internal for a Huge robot. It must be external for smaller robots since the storage space allowed is 25 lb. for Large robots.

This upgrade removes the need to use hands or manipulators to replace a magazine. It requires no special effort to load an integral magazine, as it is a single integrated system. However, once empty, refilling the magazine takes a full round action.

Refilling a magazine costs the listed amount. For example, 15 shotgun rounds cost 15 cr. Ammunition does not cost XP for soulmechs. Automatic fire is limited to whatever magazine or cell the weapon normally uses.

Internal auditory IO: This is a system that taps into the speech and hearing centers of a robot or soulmech. This allows information to be sent to a datapad, recorded, or used to run devices. Combined with an internal datapad, a soulmech can choose to shunt speech to data, without creating audible sounds. Robots can switch output like this automatically.

Internal datapad: Some soulmechs prefer to have computers installed into their chasses. These internal datapads do not have any default interfaces, so the must be wired to a visual data overlay, neural net shunt, or some other control device. A soulmech or robot can then operate programs or connect to networks with no visible equipment. With a neural net shunt, this access is unnoticeable.

Lifelike: Restricted to robots with biosynthetic conversion, this upgrade enhances the appearance of life. The skin of the robot feels warm to the touch and has a realistic texture. It is malleable, with nearly the

same elasticity. Other fine details include small hairs, irregular patterns of veins and coloration, and slight variations in the length of limbs. A robot may have hair if desired, artistically designed to look natural.

This upgrade allows a robot to pass for organic only to casual inspection. A Spot check (DC 20) or Search check (DC 15) allows a character to notice that the robot looks unnatural. A soulmech who makes an effort to conceal his artificial nature should substitute an opposed Disguise check for these fixed DCs. Exposed robotic features reveal the robot's nature automatically. Any instrumentation used on the robot reveals its nature (including most scanners and medical equipment).

Microjet: This upgrade involves a series of vents that allow the robot to fly at its listed speed. The propulsion uses a reservoir of air, which is ionized and accelerated, functioning in atmosphere, vacuum, or even underwater (in aquatic environments it ionizes water). It is much less powerful than a hoverlift. Speed is reduced by 10 ft. for each level of gravity higher than zero-g. For example, in standard gravity (1g) a robot with a base speed of 50 ft. would have an effective speed of 10 feet. A microjet can store enough air to allow one mile of travel in vacuum. It is not limited in other environments. Unlike other flight systems, the microjet can work with any size robot.

Morphic design: Mainly for robots with the biosynthetic conversion, this upgrade allows a robot to assume a variety of appearances. Each form may be a different gender, race, age, height, and build. Forms can also be fanciful or completely unique. One new form is gained per upgrade. Behavior and mannerisms are not altered significantly, and voice must be altered by other means. Though in some ways like a perfect disguise, the robot still looks artificial. If a robot or soulmech also has the lifelike upgrade, its benefits apply to each form. It takes a full round action to switch forms.

Natural armor: Advanced armor types, such as active and variable armor, can be procured as natural armor upgrades. The same rules and cost adjustments apply. Any increase in cost increases XP cost as normal for soulmechs.

Neural net tap: These are the machine analogs of brainports. They tie directly to the neural net, allowing a more intimate connection with computerized devices. Neural net taps have all the advantages and drawbacks of equivalent brainports.

Robotic skill chips are limited to skills the robot is capable of using. Skill chip design is incompatible between robots, soulmechs, and organic beings.

Self-destruct: The robot has an explosive weapon installed. Explosives are purchased as an integral weapon. All of the explosives are set off at once. For an extra 100 cr, an external integral explosive can be designed to propel itself a short distance. Each launch clip is hardwired with a specific direction. A robot could have three clips set to flip explosives forward, and two more clips set to fling an explosive left and right. Each explosive is thrown at a 5-ft. section of floor 10 feet in the appropriate direction. The robot is typically in the blast area, and may attempt a Reflex save to take half damage.

A robot without spring clips cannot make a Reflex save for half damage. The explosives detonate in contact with the robot. If the explosives are internal, the robot must make a Fortitude save (DC equal to damage taken) or be immediately destroyed. If the save succeeds, damage is applied normally.

Internal explosives are automatically concealed. The DCs to observe external explosives are increased by 5. External explosives can be removed with a Demolitions check (DC 20). Internal explosives require a Repair check (DC 15) and a Demolitions check (DC 25). A roll of 1 on either check activates the self-destruct.

Soulmechs are unlikely to voluntarily choose such an upgrade. It is possible that such an upgrade could be installed against their will, and outside of their control. This upgrade has no XP cost. The credit cost of the upgrade is double the base cost of the desired explosives.

Sensor upgrades: Soulmechs and robots can install a variety of sensors to improve vision. Multiple sensors require the robotic equivalent of integrated goggles. Switching or mixing visual modes are free actions.

The cost is equal to the normal cost of sensors or integrated systems. In most cases, multiple sensors are needed for proper vision. A robot needs twice the normal number of sensors to combine a visual mode with 360° vision.

Sessile: The robot is incapable of movement. Shaped like a box or sphere, it lacks manipulators or motivators of any kind. The chassis is simplified, reducing overall cost. Tiny sessile chassis designs are common when the robot serves as an advanced computer. Larger sessile chasses are appropriate for fixed robotic weapon emplacements.

Other robots, vehicles, or personnel are used to move sessile robots. Manipulators can be added, so the robot can work on nearby equipment. The cost of redesigning a sessile robot for mobility is twice the original difference in cost. This is required if the robot is given any mode of mobility.

Some soulmechs combine this and a neural net tap. Though psychologically disorienting, they rely on a

vehicle or other robots to serve as their body. A sessile chassis reduces XP cost but counts as a strange form, with standard penalties (see the *Starfarer's Handbook*, page 32).

Specialized design: A specialized design gives a robot an advantage based on the shape of the body. Four points can be added to skills, with no more than a +2 bonus to a single skill. Skills are typically physical, such as Climb and Balance. Other skills are certainly possible with an inventive chassis design. A robot with a frightening form could have a bonus to Intimidate or Bluff. This bonus stacks with other upgrade bonuses. Multiple specialized design upgrades are possible, but the total bonus due to specialized design is still limited to +2 per skill.

Spell relay: This upgrade is crafted from magically reactive synthetic materials manufactured using advanced alchemical technologies. The relay is a small, reflective sphere that can be attached to any robot chassis. While the relay is not itself magical, it reacts in predictable ways to magical energies. Internal processors allow the spell relay to be programmed and to react to commands from the host robot or a remote operation system.

The upgrade's primary function is to redirect the operator's spells. When casting a spell through a spell relay, a spellcaster can trace a legal line of effect between himself and the relay, and between the relay and the target. Obstructions that would block the line of effect between the spellcaster and the target are ignored as long as they do not block the new line of effect created with the aid of the spell relay. This allows a spellcaster to use a robot to scout ahead in confined quarters, redirecting spells around corners, doorways, rocks, trees, and other obstructions. A carefully positioned spell relay can even negate cover bonuses or magical defenses (e.g., a *shield* spell) an opponent might ordinarily benefit from when attacking the spellcaster.

The robot hosting the spell relay must typically be linked to a remote operation unit that is controlled by the spellcaster. The spellcaster can program the spell relay as a free action through such a device.

Streamline: This upgrade streamlines the chassis so it moves well underwater. The streamlining works at speeds up to 300 ft., just higher than the typical speeds of the fastest robots. Without streamlining, speed underwater is halved and the robot's sonic signature doubles.

Swarm: Two or more robots linked through wireless communications create a swarm. This allows a swarm of robotic units to share processing and function as one being. A swarm with spare units can replace individual units. This upgrade is useful for security and maintenance robots. A swarm can move as many individual units, fly through a ventilation shaft, and then assemble into a larger unit to do work.

A robotic swarm costs twice what a chassis of its overall size costs. A Large swarm would cost 8,000 credits. Individual units can be any size category smaller than this overall size. The number of units in the swarm is the total hit points divided by the hit points of the individual units. Each unit also has a fraction of Int, Wis, and Cha. Loss of a unit causes that amount of ability loss until the unit is replaced.

A Large chassis typically has 22 hit points. Tiny chasses have 2 hit points. A Large swarm made up of Tiny robots has 11 individual units. Loss of a unit lowers Int, Wis, and Cha by 1. If the robot has combat programming the extra hit points are divided among individual units.

Individual units can group together into larger effective chasses. When aggregated, they have the same speed, abilities, and other characteristics appropriate to that size chassis. This is a major advantage of the swarm design, allowing the robot to change from a fast moving cloud of Tiny robots to a powerful Large robot. No matter the grouping, the robot

gets the same number of actions as a single individual, though attacks on specific units use the individual unit AC.

Upgrades are bought normally and apply to all units. Upgrades available for chasses up to a certain size are purchased normally but only function at appropriate sizes. For example, a swarm with hoverlift would need another movement design when assembled into a Medium-size group.

An upgrade that requires a size larger than the individual units costs twice as much. Furthermore, individual units under the required size typically cannot benefit from the upgrade. Energy weapons are the major exception. Energy weapons operate at a fraction of range, damage, and energy consumption.

For example, a holdout laser as an internal integral weapon requires a Small chassis. In a swarm with Tiny members the price is doubled. Tiny units are about 1/3 the size of Small robots, so each can fire the holdout laser at 1/3 damage and range. If they assemble into a Small or larger group, the weapon is fired normally.

Storage compartment size is based on whatever size the individual units are. A Large swarm can hold 25 lb. when fully assembled. As 11 Tiny units, the swarm can carry 1 lb. per unit.

Signal jammers and EMP pulses can severely interfere with a swarm. A signal jammer stuns a swarm for one round if it is not grouped into its aggregate form.

It is possible for a soulmech to choose this upgrade. Unlike robots, lost Int, Wis, and Cha due to loss of a unit are not regained when a unit is replaced. Instead, replacement of a unit is simply a prerequisite that must be met before the soulmech can recover the ability points as normal.

Visual data overlay: This system produces the same effect as data glasses. The port can be internal or external. Images may overlay or replace vision, routed through a processor linking the visual sensors and the neural net. The data overlay produces the same effect as IO goggles.

Water jet: Water jet propulsion uses a tube running from a water intake to an exhaust nozzle. The walls of the tube are constructed as a series of constricting rings, capable of rapid contraction and expansion. This is designed to produce a peristalsis action, forcing water through the tube at great speeds. The nozzle is flexible, taking a shape optimal to speed and pressure. The water jet also enhances maneuverability.

The system is not as powerful as other propulsion methods, but it is much quieter. The robot suffers a –10 penalty to base speed when using the water jet but gains a +4 bonus on Hide and Move Silently checks and a +5 bonus to its stealth rating (see *the Starfarer's Handbook*, page 158). Without a propulsion unit, underwater movement is restricted to the seafloor at half speed.

Water screws: This propulsion system is common to many undersea vehicles. Propulsion is created by a set of propellers or screws. The system allows the robot to move on the water suface at its base speed plus 10 ft., and below the water's surface at its base speed.

This system is much noisier than the water jet. A robot using this propulsion system suffers a –2 penalty on Hide and Move Silently checks and a –2 penalty to its stealth rating.

CHAPTER FOUR

VEHICLES

GROUND VEHICLES

BATTLE TANK

This massive war machine is still a mainstay of the ground forces of the Imperial Legions. It is designed to destroy enemy combat vehicles and infantry, as well as light fortifications. Battle tanks have ravaged primitive castles and citadels across the Outlands in the Domains of Asamet.

The most common battle tank designs feature a large-caliber rifled cannon for a main gun and a secondary laser or blaster cannon for energy weapon support against infantry.

Battle Tank: Huge Vehicle; hp 180; Top Spd 15; Acc 1; Dec 2; Hand –2; Sensor +3; Stealth 10; AC 25 (–2 size, +10 natural, +12 armor, –5 Dex); SQ vehicle, hardness 10; Fuel 500.

Stations: Pilot 1, Gunner 1, Fire Control 1, Passengers 4.

Cargo: 1,000 lb.

Cost: 100,000 cr.

Weapon: Rifled cannon; Fire arc: turret, Attack bonus: +5; Damage: 8d12; Range: 20.

Weapon: Laser cannon; Fire arc: turret; Attack bonus: +2 (targeting computer); Damage: 6d10; Range: 10.

Weapon: Four multishot (24) missile launcher; Fire arc: turret; Damage: By missile; Speed: By missile.

HALF-TRACK APC

This military vehicle is an armored personnel carrier designed for the Imperial Legions to transport mechanized infantry to and from the battlefield. The half-track is rugged and durable, capable of traversing even the most difficult terrain. It is not capable of travel over water, however, and this has led to its gradual replacement by hovercraft in many units.

The half-track APC is armored, but it is never armored heavily enough to suit the Legionnaires who must trust their lives to it. Many veteran soldiers refer to the APC—and other vehicles like it—as a "meat wagon," due to its high casualty statistics in modern conflicts. While a solid design, the APC simply can't stand up to the mechanized weapons of imperial battlefields. Moreover, the interior of the vehicle is

cramped and challenging to exit in an emergency, so an APC lost to enemy fire typically takes most or all of its troops with it.

The APC is designed to carry up to 20 troops, along with their standard weapons and gear, in notoriously cramped conditions. In practice, the troop capacity is often much lower, as crews use some of the hold space for spare parts and fuel. The fact that soldiers must often ride into battle alongside a substantial supply of volatile fuel does little to improve the APC's dubious reputation.

Half-Track APC: Gargantuan Vehicle; hp 120; Top Spd 10; Acc 1; Dec 2; Hand –4; Sensor +2; Stealth 5; AC 14 (–4 size, +10 natural, +5 armor, –5 Dex); SQ vehicle, hardness 20; Fuel 300.

Stations: Pilot 1, Gunner 1, Passengers 20.

Cargo: 2,000 lb.

Cost: 75,000 cr.

Weapon: Laser cannon; Fire arc: turret; Attack bonus: +2 (targeting computer); Damage: 6d10; Range: 10.

Sea Vessels

Most of the inhabited worlds of the Empire have extensive oceans. There are great resources under these oceans that many races prize. Many different marine craft are used both on and under the oceans of imperial planets. Sea vessels are categorized as submarines or surface ships.

Submarines

Underwater scale is the same as surface scale for the purposes of vehicle combat. Submarine vessels can rise to the surface and are built to handle significant pressure. The density and inability of water to compress means that submarine vessels cannot normally exceed a speed of 704 feet per round, or a top speed of 14.

Submarines have a standard pressure tolerance of 30 atmospheres, sufficient to reach most undersea settlements. This translates to a depth of 957 feet in standard gravity. Military, exploration, and mining vessels may have greater tolerances.

Some vessels are capable of generating supercavitation. This is a bubble of air around the vehicle, allowing it to move with little friction and reach speeds of 3,000 feet per round. Maximum speed for supercavitating vessels is 60. When engaging supercavitation, a ship's stealth rating and sensor rating suffer a –10 circumstance penalty.

Submarine missiles, or torpedoes, are similar to standard surface missiles, including speed. Sub missiles and rockets both rely on supercavitation. This hampers missile sensors, and guidance ratings suffer a –5 penalty.

Many of the weapons typical in other environments perform poorly underwater. Standard lasers have terrible range. Blue light lasers and masers have good range but lack substantial damage. Larger ships rely on missiles, though starship masers are common for long-range attack.

Deep-Sea Explorer

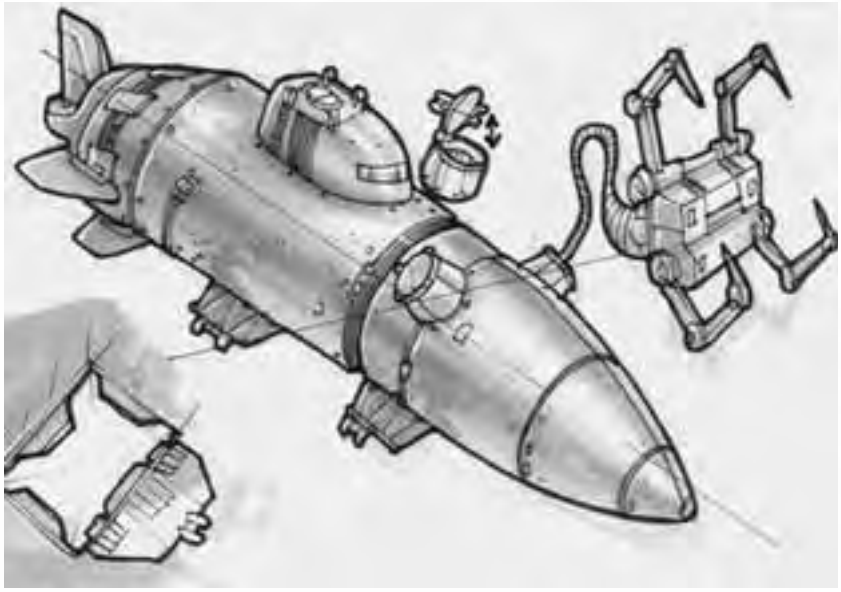
These ships are frequently used in undersea mining operations. Capable of withstanding massive pressures, explorers can shuttle equipment down to 150 atmospheres of pressure (almost 5,000 feet at standard pressure and gravity). Explorers have four arm-like manipulators capable of exerting Strength 24 and stretching out 10 feet. Robotic components can be added to the vehicle at normal costs, though some upgrades may require a robotic brain. Many explorers are fitted for robotic pilots.

Deep-sea explorer: Huge Vehicle; hp 90; Top Spd 14; Acc 3; Dec 2; Hand –3; Sensor +0; Stealth 5; AC 3 (–2 size, –5 Dex,); SQ vehicle, hardness 10; Fuel 400.

Stations: Pilot 1, Passenger 3.

Cargo: 1,000 lb.

Cost: 50,000 cr.



SENSOR DRONE

This vehicle is a small submersible built to house a pilot box. It has a decent range of abilities and excellent sensors. Propulsion consists of a contracting tube that creates a jet of water. The military version has stealth 25 and is frequently used as a spotter. The robotic pilot typically adds 4,000 cr to the cost.

Sensor Drone: Diminutive Vehicle; hp 20; Top Spd 14; Acc 4; Dec 4; Hand +4; Sensor +5; Stealth 15; AC 9 (+4 size, –5 Dex); SQ surveillance sensors +5, vehicle, hardness 1; Fuel 150.

Stations: Pilot 1.

Cargo: None.

Cost: 500 cr.

SLED

Sleds are common in underwater work. They provide water jet propulsion for characters or robots. The design is simple, with a streamlined canopy for the user. Alternately, the sled can tug a person and gear around. The engine is powerful, allowing the sled to carry loads or provide leverage for undersea work. Most sleds have simple computerized controls so a user can operate it remotely.

Sled: Diminutive Vehicle; hp 20; Top Spd 5; Acc 2; Dec 1; Hand +2; Sensor +0; Stealth 15; AC 9 (+4 size, –5 Dex); SQ vehicle, hardness 1; Fuel 150.

Stations: Pilot 1.

Cargo: 500 lb.

Cost: 400 cr.

SUB ROVER

A rover is designed to travel long distances underwater, though not quickly. It is equipped with good sensors. Rovers are used for everything from military reconnaissance to geological surveys.

Sub Rover: Huge Vehicle; hp 90; Top Spd 14; Acc 3; Dec 2; Hand –3; Sensor +5; Stealth 5; AC 3 (–2 size, –5 Dex,); SQ surveillance sensors, vehicle, hardness 10; Fuel 600.

Stations: Pilot 1, Passengers 2.

Cargo: 1,500 lb.

Cost: 60,000 cr.

SUBSHUTTLE

Shuttles are small ships useful for moving between undersea communities. Fuel capacity is limited, as they are not intended for long trips. The seats are removable, so the passenger space can be filled with cargo or additional fuel containers. Each passenger seat removed makes room for 200 lb. of cargo or +100 fuel capacity. The four-seater listed is the most common model, large enough to be adapted to a variety of jobs.

Subshuttle: Huge Vehicle; hp 90; Top Spd 14; Acc 3; Dec 2; Hand –3; Sensor +0; Stealth 5; AC 3 (–2 size, –5 Dex,); SQ vehicle, hardness 10; Fuel 200.

Stations: Pilot 1, Passenger 6.

Cargo: 1,000 lb.

Cost: 30,000 cr.

SUBVERTICAL

This ship is little more than a long tube cut into sections. It has four small engines and a pilot capsule. Cargo containers are loaded into the lower parts of the tube through large bay doors. The engines are weak, only intended for maneuvering. The vessel's main purpose is shuttling cargo between ocean settlements and the surface. It controls depth through flooding sections of the ship, and rises by pumping air back into them. Most shipping is done with cheap surface freighters. These freighters can unload cargo

onto loading platforms or directly into subverticals. The cargo can then be brought down to the undersea facility. Rovers and subshuttles can be used as tugs when needed, or to transport smaller cargoes between adjacent communities.

Subverticals descend at 30 feet per minute and rise at five feet per minute. They have a maximum dive capacity of 10 atmospheres, or a depth of about 300 feet at standard gravity and pressure.

Subvertical: Colossal II Vehicle; hp 300; Top Spd 5; Acc 2; Dec 2; Hand –3; Sensor +0; Stealth 8; AC 3 (–16 size, +14 natural, –5 Dex,); SQ vehicle, hardness 40; Fuel 200.

Stations: Pilot 1, Crew 25.

Cargo: 250 tons.

Cost: 50,000 cr.

Military Submarines

Sub Fighter

This is one of the most common vessels using supercavitation. It is capable of extreme speeds and can unload four torpedoes at a time on a single target. Each of the four launchers can fire eight times before they require reloading. Sub fighters can move without supercavitation, but are then limited to speed 14.

Sub Fighter: Huge Vehicle; hp 90; Top Spd 30; Acc 4; Dec 3; Hand +4; Sensor +6; Stealth 15; AC 18 (–2 size, +10 natural, +5 armor, –5 Dex); SQ surveillance sensors, vehicle, hardness 10; Fuel 400.

Stations: Pilot 1.

Cargo: 100 lb.

Cost: 1,000,000 cr.

Weapon: Quad multishot (8) torpedo launcher battery; Fire arc: front; Attack bonus: +2 (targeting computer); Damage: By torpedo; Range: By torpedo.

Patrol Sub

Also called sub corvettes, patrolboats rely more on remaining unseen than speed. They are unable to use speed like midsize vehicles in other environments. They are versatile units, able to ambush other forces, provide escort, or reconnoiter. Patrolboats are often used against surface ships or aircraft. Patrolboats are sometimes used to pick off sensor drones before calling on sub fighters.

Sub Patrolboat: Huge Vehicle; hp 90; Top Spd 14; Acc 2; Dec 1; Hand –2; Sensor +6; Stealth 18; AC 23 (–2 size, +10 natural, +10 armor, –5 Dex); SQ maneuv spars, sensor baffles, surveillance sensors, vehicle, hardness 10; Fuel 500.

Stations: Pilot 1, Sensor 1.

Cargo: 500 lb.

Cost: 2,500,000 cr.

Weapon: Twin maser cannons (battery); Fire arc: front; Attack bonus: +2 (targeting computer); Damage: 6d10; Range: 10.

Weapon: Multishot (16) missile launcher; Fire arc: turret; Attack bonus: +2 (targeting computer); Damage: By missile; Speed: By missile.

Sub Cruiser

This class of ship is extremely valuable in support of underwater combat actions. Speed limitations hamper smaller vessels that normally rely on agility. Cruisers are used instead of traditional mid-class ships, along with fighters and patrolboats. Able to strike with masers at immense range, cruisers can provide vital power in large fleet actions. Cruisers can also lead smaller forces, providing cover for patrolboats and fighters.

Sub Cruiser: Gargantuan Vehicle; hp 100; Top Spd 14; Acc 3; Dec 3; Hand –3; Sensor +5; Stealth 15; AC 21 (–4 size, +10 natural, +10 armor, –5 Dex); SQ antimissile system (1 attack/round), vehicle, hardness 20; Fuel 10,000.

Stations: Pilot 1, Sensor 1, Gunner 2, Crew 10.

Cargo: 3 tons.

Cost: 500,000 cr.

Weapon: Twin maser cannons (battery); Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 6d10; Range: 10.

Weapon: Two multishot (16) missile launchers; Fire arc: turret; Damage: By missile; Speed: By missile.

Sub Carrier

Sub carriers function as mobile command bases. Many imperial sub fleets rely completely on carriers, having no fixed bases. These carriers can be loaded onto starships and deployed where needed. They are designed to support patrolboats and fighters, as well as provide fuel for cruisers. Sub carriers typically have fuel refinery equipment, and continuously refuel unless the carrier is attempting stealth.

Sub carriers are also used in a civilian capacity, as roving undersea communities. Their characteristics are much the same, with the ship-bay layout more suited to cargo and personnel than munitions.

Sub Carrier: Colossal III Vehicle; hp 400; Top Spd 4; Acc 1; Dec 1; Hand –8; Sensor +10; Stealth 5; AC 18 (–32 size, +25 natural, +20 armor, –5 Dex); SQ antimissile system (up to 2 attacks per round), surveillance sensors, vehicle, hardness 50; Fuel 50,000*.

Stations: Sensor 4, Gunner 2, Crew 600.

Cargo: 500 tons, 100 patrolboats and fighters.

Cost: 1,500,000 cr.

Weapon: Two twin maser cannons (battery); Fire arc: turret; Attack bonus: +5 (targeting computer); Damage: 6d10x2; Range: 10.

Weapon: Quad maser cannons (battery); Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 6d10x4; Range: 10.

Weapon: Two multishot (16) missile launchers; Fire arc: turret; Damage: By missile; Speed: By missile.

SUB BATTLESHIP

Underwater battleships are used as traditional ships of the line, but also frequently serve as carrier escort. Limited speed is not as significant for a battleship, and it can project deadly force at range. Battleships are a vital part of any battle plan in and around water.

Sub Battleship: Colossal III Vehicle; hp 400; Top Spd 5; Acc 1; Dec 1; Hand –8; Sensor +12; Stealth 5; AC 18 (–32 size, +25 natural, +20 armor, –5 Dex); SQ antimissile system (up to 4 attacks/round), surveillance sensors, vehicle, hardness 50; Fuel 900.

Stations: Sensor 5, Gunner 10, Crew 100.

Cargo: 400 tons.

Cost: 1,250,000 cr.

Weapon: Four twin maser cannons; Fire arc: turret, Attack bonus: +5; Damage: 6d10x2; Range: 10.

Weapon: Two quad maser cannons (battery); Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 6d10x4; Range: 10.

Weapon: Four multishot (24) missile launcher; Fire arc: turret; Damage: By missile; Speed: By missile.

Surface Vessels

Sea vessels traveling on the ocean surface are capable of regular ground vehicle speeds. Some surface vessels, such as hydrofoils, surface-effect planes, and hovercraft, blur the line between ships and aircraft. While some may be designed for true atmospheric flight, most are not capable of achieving altitudes greater than a few feet. Hovercraft are designed to operate on both land and sea.

CUTTER

This is a lightly built, maneuverable ship. It is versatile, used by law enforcement as a quick patrol ship and by the military to provide forward firing and general reconnaissance. The version listed is for a military cutter. Civilian models have sensor +5, Stealth 5, AC 3, and cost about 50,000 cr. Their cargo capacity is 2 tons and they lack the listed weapons. Civilian models replace crew with passengers, though quarters are often cramped.

Cutter: Huge Vehicle; hp 90; Top Spd 20; Acc 2; Dec 2; Hand –2; Sensor +6; Stealth 15; AC 18 (–2 size, +10 natural, +5 armor, –5 Dex); SQ surveillance sensors, vehicle, hardness 10; Fuel 400.

Stations: Pilot 1, Sensor 1, Crew 4.

Cargo: 1 ton.

Cost: 100,000 cr.

Weapon: Two laser cannons; Fire arc: right and left; Attack bonus: +2 targeting computer; Damage: 6d10; Range 10.

Weapon: Multishot (8) missile launcher; Fire arc: front; Damage: By missile; Speed: By missile.

PASSENGER LINER

These vessels are used for recreational cruises. This model is a common design, though liners are available in countless variations. Standard cabins are 15 feet by 15 feet. There are also swimming pools, entertainment options such as restaurants and casinos, housekeeping services, small medical facilities, and other services.

Passenger Liner: Colossal III Vehicle; hp 400; Top Spd 5; Acc 2; Dec 2; Hand –8; Sensor +0; Stealth 1; AC 3 (–32 size, +30 natural, –5 Dex); SQ vehicle, hardness 50; Fuel 5,000.

Stations: Sensor 5, Crew 200, Passenger 800.

Cargo: 1,000 tons.

Cost: 50,000,000 cr.

LIGHT OCEAN FREIGHTER

The smallest of cargo ships, the light freighter has the advantage of good speed and handling. It can sail on large rivers and lakes, as well as the ocean. Light freighters are sometimes used as tugs for larger ships. Militaries use light freighters as transports for troops and equipment.

Light Ocean Freighter: Colossal Vehicle; hp 100; Top Spd 15; Acc 2; Dec 2; Hand –4; Sensor +0; Stealth 2; AC 6 (–8 size, +9 natural, –5 Dex); SQ vehicle, hardness 20; Fuel 10,000.

Stations: Pilot 1, Sensor 1, Crew 10.

Cargo: 250 tons.

Cost: 800,000 cr.

STANDARD OCEAN FREIGHTER

There are two types standard freighters. The basic model has several large holds, suitable for carrying bulk liquids, such as oil. Pressurized cargo holds can

be used to transport liquid deuterium, though cargo space is 80% of normal. The freighter can also be designed as a container ship, with 80% of the listed cargo space. It has the advantage of being able to load and unload quickly, and can carry a wide variety of goods.

Standard Ocean Freighter: Colossal II Vehicle; hp 300; Top Spd 10; Acc 2; Dec 2; Hand –6; Sensor +1; Stealth 1; AC 1 (–16 size, +12 natural, –5 Dex); SQ vehicle, hardness 40; Fuel 10,000.

Stations: Sensor 3, Crew 25.

Cargo: 1,250 tons.

Cost: 2,000,000 cr.

SUPERFREIGHTER

These massive vessels carry huge amounts of cargo. The standard version has holds for liquid, but like standard freighters may be designed for fuel or containers. Even larger versions exist on the major worlds of the Empire.

Superfreighter: Colossal V Vehicle; hp 800; Top Spd 3; Acc 1; Dec 1; Hand –10; Sensor +4; Stealth 1; AC 7 (–128 size, +130 natural, –5 Dex); SQ vehicle, hardness 80; Fuel 20,000.

Stations: Sensor 15, Crew 500.

Cargo: 125,000 tons.

Cost: 12,000,000 cr

FRIGATE

With good speed and weapons, frigates can function as effective patrol vessels as well as versatile combat vessels in small engagements. Sensors mounted below the water line allow them to track and monitor submarines. Missile launchers on frigates are versatile and can be aimed at craft underwater, on the surface, or in the air, depending on the missile loaded. Surface-to-surface missiles can target units on land.

Frigate: Gargantuan Vehicle; hp 100; Top Spd 20; Acc 3; Dec 3; Hand –3; Sensor +10; Stealth 15; AC 21 (–4 size, +10 natural, +10 armor, –5 Dex); SQ antimissile system (1 attack/round), surveillance sensors, vehicle, hardness 20; Fuel 10,000.

Stations: Pilot 1, Sensor 1, Gunner 2, Crew 10.

Cargo: 20 tons.

Cost: 5,000,000 cr.

Weapon: Twin plasma cannons (battery); Fire arc: front; Attack bonus: +2 (targeting computer); Damage: 10d10x2; Range: 15.

Weapon: Quad laser cannon; Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 6d10x4; Range: 10.

Weapon: Multishot (16) missile launchers; Fire arc: turret; Damage: By missile; Speed: By missile.

DESTROYER

Destroyers have more firepower and armor than frigates. Though not as fast, they are able to provide solid protection for larger ships or engage other light vessels. It is important for a destroyer to be cautious with more agile vehicles, as it can be drawn into a formation and overwhelmed. Destroyers are in the unenviable position of having to contend with aircraft, surface craft, and submarines, and many mount underwater antimissile systems.

Destroyer: Colossal Vehicle; hp 200; Top Spd 15; Acc 2; Dec 2; Hand *2*; Sensor +10; Stealth 12; AC 20 (–8 size, +15 natural, +8 armor, –5 Dex); SQ antimissile system (2 attacks/round), surveillance sensors, vehicle, hardness 30; Fuel 10,000.

Stations: Pilot 1, Sensor 2, Gunner 4, Crew 20.

Cargo: 40 tons.

Cost: 7,500,000 cr.

Weapon: Two twin plasma cannons (battery); Fire arc: front; Attack bonus: +2 (targeting computer); Damage: 10d10x2; Range: 15.

Weapon: Two quad laser cannons; Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 6d10x4; Range: 10.

Weapon: Two multishot (16) missile launchers; Fire arc: turret; Damage: By missile; Speed: By missile.

CRUISER

Full warships, cruisers mount serious firepower. Able to attack ground emplacements from sea and inflict serious damage on marine settlements, a fleet of cruisers can pose a serious threat. Destroyers and frigates are necessary support, as fast moving strike craft can devastate an isolated cruiser.

Cruiser: Colossal II Vehicle; hp 300; Top Spd 10; Acc 1; Dec 1; Hand –6; Sensor +6; Stealth 8; AC 15 (–16 size, +16 natural, +10 armor, –5 Dex); SQ antimissile system (5 attacks/round), vehicle, hardness 40; Fuel 10,000.

Stations: Pilot 1, Sensor 4, Gunner 6, Crew 50.

Cargo: 200 tons.

Cost: 15,000,000 cr.

Weapon: Six twin plasma cannons; Fire arc: one per arc; Attack bonus: +2 (targeting computer); Damage: 10d10x2; Range: 15.

Weapon: Two multishot (16) missile launchers; Fire arc: front; Damage: By missile; Speed: By missile.

Weapon: Four multishot (16) missile launchers; Fire arc: turret; Damage: By missile; Speed: By missile.

CARRIER

While not as significant as submarine mobile-command, carriers provide quick deployment of aircraft. Aircraft deliver fast, overwhelming force on targets, and can also provide vital coverage against air attack. Some carriers are equipped with sub bays, mounted at or below the water line. These carriers can carry 10 times as many sub fighters and patrolboats as strike aircraft. Like the submersible version, carriers can refine fuel from water.

Carrier: Colossal IV Vehicle; hp 500; Top Spd 3; Acc 1; Dec 1; Hand –10; Sensor +8; Stealth 2; AC 11 (–64 size, +40 natural, +30 armor, –5 Dex); SQ antimissile system (10 attacks/round), vehicle, hardness 60; Fuel 10,000*.

Stations: Sensor 10, Gunner 10, Crew 1,200.

Cargo: 5,000 tons, 60 strike aircraft.

Cost: 20,000,000 cr.

Weapon: Eight twin plasma cannons; Fire arc: two per arc; Attack bonus: +2 (targeting computer); Damage: 10d10x2; Range: 15.

Weapon: Two multishot (16) missile launchers; Fire arc: front; Damage: By missile; Speed: By missile.

Weapon: Four multishot (16) missile launchers; Fire arc: turret; Damage: By missile; Speed: By missile.

BATTLESHIPS

Battleships are used to provide an unstoppable, deadly force to protect bases or fleets. They can also decimate cities and are capable of withstanding significant attack even without support. Unlike space battleships, those at sea are still a vital part of many battle strategies.

Battleship: Colossal III Vehicle; hp 400; Top Spd 5; Acc 1; Dec 1; Hand –8 Sensor +7; Stealth 5; AC 18 (–2 size, +25 natural, +20 armor, –5 Dex); SQ antimissile system (10 attacks/round), vehicle, hardness 50; Fuel 800.

Stations: Sensor 10, Gunner 10, Crew 200.

Cargo: 2,000 tons.

Cost: 50,000,000 cr.

Weapon: Eight twin plasma cannons; Fire arc: two per arc; Attack bonus: +2 (targeting computer); Damage: 10d10x2; Range: 15.

Weapon: Quad plasma cannon; Fire arc: front; Attack bonus: +2 (targeting computer); Damage: 10d10x4; Range: 15.

Weapon: Two quad starship plasma cannons (battery); Fire arc: turret; Attack bonus: +5 (targeting computer); Damage: 10d10x4; Range: 15.

Weapon: Eight multishot (16) missile launchers; Fire arc: turret; Damage: By missile; Speed: By missile.

HOVERCRAFT

HOVERJEEP

This utility hover vehicle is designed for rugged and durable performance in wilderness areas. The hover propulsion system allows the vehicle to traverse a broad range of terrain, including water.

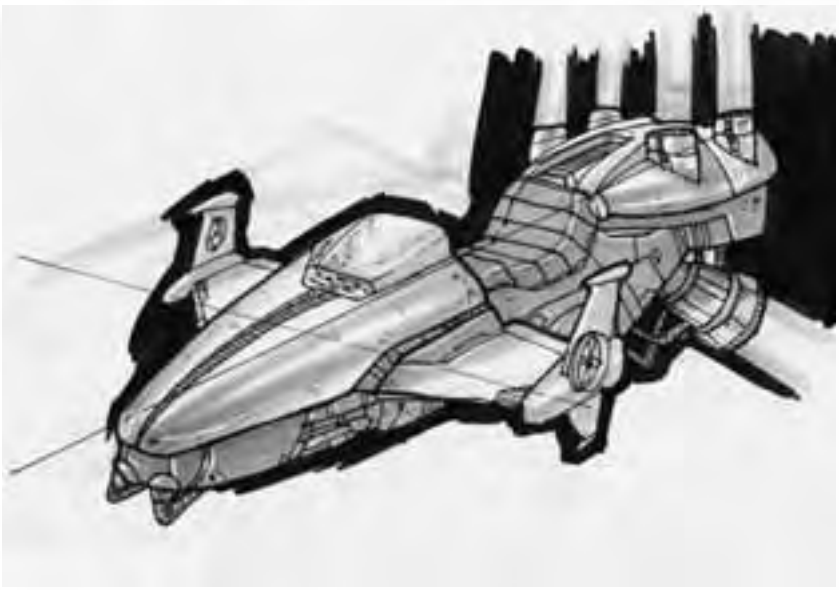
The standard hoverjeep model lacks an enclosed canopy, favoring a durable crash cage instead. While the hovercraft is far less prone to rolling than a ground vehicle, the cage provides the passengers with adequate protection in case of accidents and collisions. Military versions of the hoverjeep mount a light weapon on the crash cage and are often used as scout and recon vehicles.

Hoverjeep: Large Vehicle; hp 80; Top Spd 25; Acc 4; Dec 4; Hand +0; Stealth 5; AC 6 (–1 size, –5 Dex, +2 natural); SQ vehicle, hardness 8; Fuel 300.

Stations: Pilot 1, Passenger 3.

Cargo: 300 lb.

Cost: 20,000 cr.



AIRCRAFT

For navigation purposes, a planet's atmosphere transitions to space at an altitude of about 100 miles. Particularly thin atmospheres may have lower limits, though the atmospheric ceiling is affected by a large number of complex factors.

Aircraft are rated for a specific atmospheric pressure between 0.5 and 1.9. Handling suffers a –1 penalty for every 0.1 atmospheres by which the air pressure differs from this design value. For example, a standard aircraft suffers a –5 handling penalty in 2.4 atmospheres.

Aircraft cannot function in less than 0.1 atmosphere. Their flight surfaces require positive air pressure to create lift.

JET BIKE

The jet bike is little more than a small but powerful turbojet engine that produces enough thrust to lift it from three to five feet off the ground (using downward-pointed vector nozzles), propel it at incredible speeds, and maneuver agilely using burst valves. It finds use as a planetary scout craft, surface courier, and recreational vehicle for those who enjoy risking their lives for a speedy joy ride.

The pilot straddles the jet on a padded, posture-formed seat. The rider must lean forward to manipulate the controls behind the low, aerodynamically designed windscreen. Stirrups just forward of the first set of vector nozzles help the pilot anchor his feet and stay on the bike.

Stubby wings run along the forward half of the cylindrical hull to assist with lift and provide stabilization. The counter-rotating compression and turbine blades—together with aerodynamic weight pods along the wings' outer edges—balance the craft. The jet engine sends the bike forward at dizzying speeds regulated by a variable thrust nacelle. Vector nozzles channel much of the exhaust downward to provide lift. Burst valves siphon off short blasts of gas to provide maneuverability. The turbojet consumes fuel at an amazing rate. The canisters strapped around the jet's circumference behind the pilot's seat provide enough propulsion for 300 miles of operation only.

The jet bike has few amenities. Short landing struts emerge when the avionics computer senses maneuvering and lower speed intended for landing. The jet bike contains no extra room for passengers or cargo other than what the pilot carries on his person. With its high speed, the vehicle is best suited for traversing vast expanses of open terrain with few obstacles. Since the jet bike itself is essentially an engine with a seat, the amount of noise it generates makes it easily detectable and prevents voice communication.

Jet bikes find use in urban or heavily settled areas with plenty of refueling facilities. The rich fly them for a thrill, though more practical people use them to quickly relay secure messages or small packages, rapidly reach remote locations, or swiftly respond to threats. Several planets are renowned for their dangerous yet entertaining jet bike races.

Jet Bike: Medium Vehicle; hp 40; Top Spd 35; Acc 6; Dec 6; Hand +16; Stealth 10; AC 5 (+0 size, –5 Dex); SQ vehicle, hardness 6; Fuel 300.

Stations: Pilot 1.

Cargo: None

Cost: 16,000 cr.

SCOUT AIRCRAFT

With a decent fuel capacity, speed, and sensor capabilities, these small craft are ideal for reconnaissance. They are used in both military and civilian capacities. High-altitude scouts can be useful for determining the composition of enemy forces. Military scouts often provide forward firing information, allowing larger, slower vehicles to deploy heavy munitions at range. Military scouts have sensor +6, stealth 15, and cost 30,000 cr. Civilian scout aircraft are occasionally

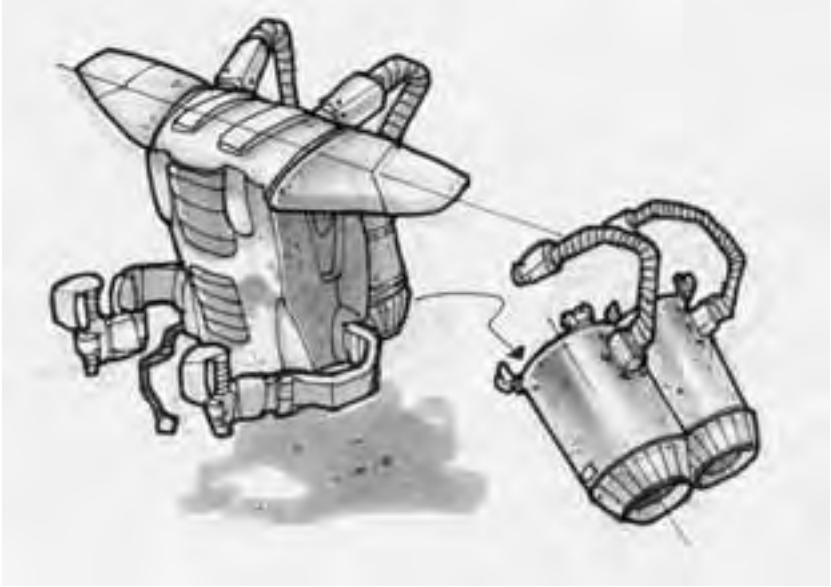
used as small transports for explorers or surveying teams.

Scout Aircraft: Large Vehicle; hp 70; Top Spd 30; Acc 5; Dec 5; Hand +15; Sensor +5; Stealth 5; AC 4 (–1 size, –5 Dex); SQ surveillance sensors, vehicle, hardness 8; Fuel 4,000.

Stations: Pilot 1, Passenger 1.

Cargo: 200 lb.

Cost: 20,000 cr.



SCREAMER WINGS

Less a vehicle and more a personal flight device, screamer wings allow one person the ability to swiftly fly over extremely limited distances. This hefty backpack unit propels the wearer for short, noisy bursts of flight using two outboard engines that ignite fuel and compressed air to provide powered lift.

The stubby "wings" extend at 25-degree angles from the top of the jetpack, aiming the hot engine exhaust away from the wearer. A belt control box regulates the amount of thrust the screamer wings provide, while shifting body postures control the user's attitude and maneuvering in flight (governed by the Pilot skill). The small fuel supply sustains flight for approximately one mile (5,280 feet) of travel (horizontal and vertical) before it runs out. It costs only 5 credits to refill the fuel tanks, assuming chemical propellant is readily available.

It takes one minute to strap into the harness, though the quick-release webbing requires only one round to free the screamer wings from the pilot's back. When unlocked from their flight position, the wings fold down and nest within the backpack for easier transport on foot, although the 30-pound weight might slow infantry movement on foot. Some shock troops use screamer wings to more quickly close the distance with enemies, or to swiftly ascend high obstacles before losing the jetpack and charging into combat. The 181st Rapid Strike Brigade employed screamer wings effectively during their assault on the High Citadel on Zygrad, using them to rapidly ascend the walls of the fortified gatehouse tower to gain a foothold within the fortress. Subsequent action involved commandos flying on screamer wings from secured areas to enemy-held parts of the citadel from which they could continue their penetrating assault.

Despite spot armor over the more delicate components, the chemical fuel system is vulnerable to attack. If the screamer wings' hit point total ever drops below 0, the unit explodes, inflicting 6d10 points of damage to the wearer and anyone within a 10-foot blast radius. A Reflex save (DC 20) halves the damage. Typical tactics with this jetpack involve flying into a hot combat zone (preferably a location with cover), releasing the screamer wings from the pilot's back, and diving into the fray.

Since the propulsion system relies on fuel ignition, screamer wings do not work in low atmospheric or vacuum environments.

Screamer Wings: Tiny Vehicle; hp 20; Top Spd 28; Acc 4; Dec 4; Hand +10; Stealth 10; AC 7 (+2 size, –5 Dex); SQ vehicle, hardness 2; Fuel 1.

Stations: Pilot 1.

Cargo: None

Cost: 2,500 cr.

HEAVY UTILITY AIRCRAFT

A larger cousin of the utility aircraft, these are VTOL planes capable of transporting large amounts of cargo at great speed. The standard version listed is for a heavy cargo plane. It can also be designed for passengers. A passenger design sacrifices 500 lb. of cargo space per passenger with luggage. This reflects room for moving through the cabin, a galley, bathrooms, and installation of safety devices.

Cargo shipping by air is more expensive, because aircraft cannot devote as much space to cargo as sea vessels can. The trade-off is considerably greater speed. On most worlds, there are a variety of transport systems to handle the specific requirements of different cargoes.

Heavy Aircraft: Colossal Vehicle; hp 120; Top Spd 20; Acc 4; Dec 4; Hand +8; Sensor +5; Stealth 2; AC 6 (–8 size, +6 natural, +3 armor, –5 Dex); SQ vehicle, hardness 30; Fuel 10,000.

Stations: Pilot 1, Sensor 1, Crew 5.

Cargo: 50 tons.

Cost: 500,000 cr.

MANTA FIGHTER

This aircraft can function both in the air and below water. It uses supercavitation to move at high speeds below the ocean surface. Manta fighters are often deployed on surface carriers and are able to provide air cover and then dive to strike at undersea targets. The speed listed is either aircraft or surface scale, depending on the environment. Weapon ranges are listed in aircraft scale.

Manta Fighter: Gargantuan Vehicle; hp 100; Top Spd 25; Acc 5; Dec 5; Hand +12; Sensor +10; Stealth 18; AC 21 (–4 size, +10 natural, +10 armor, –5 Dex); SQ sensor baffles, surveillance sensors, vehicle, hardness 20; Fuel 2,000.

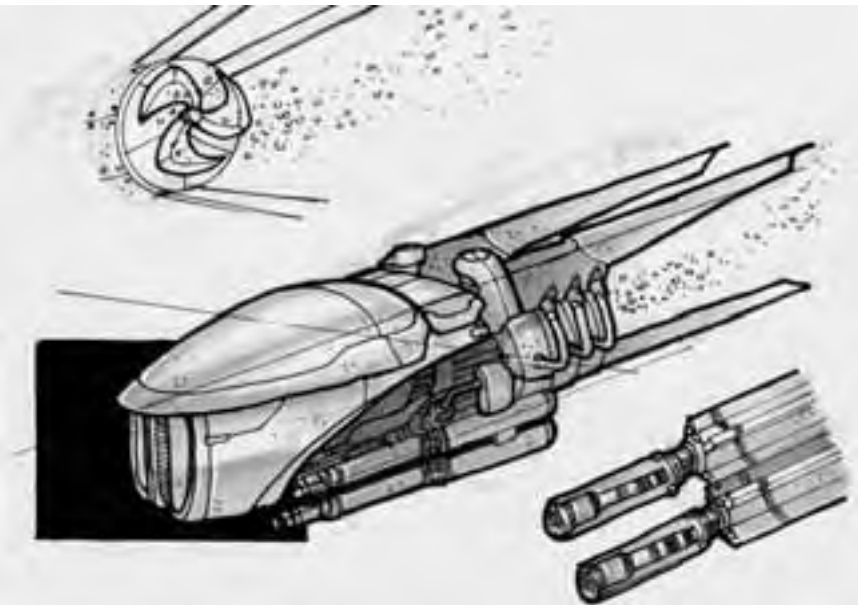
Stations: Pilot 1, Sensor 1.

Cargo: 3 tons.

Cost: 1,500,000 cr.

Weapon: Twin maser cannons (battery); Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 6d10; Range: 10.

Weapon: Multishot (16) missile launcher; Fire arc: front; Damage: By missile; Speed: By missile.



AIR COMMAND POST

Something like an aerial carrier, these aircraft provide refueling and a mobile command headquarters. A few air command posts can provide personnel transport and offices. With some heavy cargo and personnel aircraft, an entire base can relocate to a new location within a few hours.

Air Command Post: Colossal II Vehicle; hp 270; Top Spd 10; Acc 2; Dec 2; Hand +7; Sensor +6; Stealth 11; AC 21 (–16 size, +16 natural, +10 armor, –5 Dex); SQ antimissile system (4 attacks/round), sensor baffles, vehicle, hardness 40; Fuel 10,000.

Stations: Pilot 1, Sensor 2, Gunner 4, Crew 50, Passenger 200.

Cargo: 50 tons.

Cost: 12,000,000 cr.

Weapon: Four twin laser cannons (battery); Fire arc: turret; Attack bonus: +5 (targeting computer); Damage: 6d10x2; Range: 50.

SPACECRAFT

There are many vehicles designed for space that lack a starcaster. Stations in orbit require vehicles to shuttle goods between them, or to and from the surface of a planet. Spacecraft are also handy for transportation to orbiting moons or through asteroid belts. Longer journeys in a system are usually limited to small starcaster-equipped ships.

Geosynchronous orbit is at 22,000 miles around standard planets. This is an orbital altitude such that orbital speed is the same as the planet's speed of rotation. A base or satellite in geosynchronous orbit therefore maintains a position over the same point along a planet's equator. Most orbital stations are in geosynchronous orbit.

Low planetary orbit ranges from 100 to 1,000 miles above a planet. Around 100 miles above a planet's surface, vessels may orbit without acceleration for a period of weeks before atmospheric friction causes their orbit to decay. Most attacks by space forces on ground forces occur in this range.

A missile launched from an altitude of 100 miles can reach the surface in two rounds. From 1,000 miles, it takes two min-

utes. Missiles fired from the ground to orbit have 2/3 normal speed and take three rounds or minutes respectively.

Small craft often orbit at 100 miles, and are therefore able to react to incoming missiles. These craft can engage ground or air forces. Larger vehicles stay further out, at 1,000 miles. These craft are used to provide heavy bombardment of ground forces and support against enemy space forces. When there is no danger of ground-space missiles, the larger craft can descend to 100 miles to engage more effectively.

BALLISTIC DROPSHIP

Used in the military for troops and munitions, dropships are also widely used as a fast way to move cargo from orbit to a planetary surface. A dropship has little maneuverability. It is put into a ballistic trajectory, so that friction with the atmosphere slows the dropship for the landing. These ships cannot be used if the planet lacks an atmosphere.

The dropship moves at spacecraft speed 30 from geosynchronous orbit (typically about 22,000 miles) to the edge of the atmosphere at around 300 miles of altitude. This takes about 70 minutes. It then shifts to the aircraft scale and moves speed 1, to land 6 minutes later. Note that the fuel rating is for maneuvering and for guidance in the final 200 miles of the drop.

Ballistic dropships are one-way ships, and they must be refitted after landing. Once refitted, they are returned to orbit aboard orbital freighters or similar craft.

Ballistic Dropship: Huge Vehicle; hp 90; Top Spd 30; Acc 1; Dec 1; Hand +0; Sensor +0; Stealth 15; AC 18 (–2 size, –5 Dex, +10 natural, +15 armor); SQ vehicle, hardness 10; Fuel 2,000.

Stations: Pilot 1, Passenger 6.

Cargo: 10 tons.

Cost: 50,000 cr.

BUBBLE DROPSHIP

This is a fast transport for moving between a planetary surface and orbit. It creates a sheath of plasma, similar in principle to supercavitation. This bubble greatly lessens atmospheric friction. A bubble dropship moves on the normal spacecraft scale through the atmosphere, though it uses aircraft modifiers for those speeds. Most bubble dropships slow down considerably when they enter the atmosphere. Even at spacecraft speed 10, it only takes a minute to move from the ground to the atmospheric ceiling. A botched Pilot check for a landing will obliterate the ship at high speeds.

The plasma bubble makes the dropship a clear target, lowering stealth to 0 and adding 10 to the DC of any sensor or communications-related checks aboard the craft.

Military forces sometimes use bubble dropships to deploy forces quickly. Scout aircraft can be loaded into a bubble dropship. The dropship descends into the atmosphere, drops the aircraft, and can then return for more forces. Scout aircraft can then identify ground targets for orbital units.

Bubble Dropship: Gargantuan Vehicle; hp 100; Top Spd 35; Acc 6; Dec 6; Hand +4; Sensor +5; Stealth 5; AC 11 (–4 size, +5 natural, +5 armor, –5 Dex,); SQ vehicle, hardness 20; Fuel 25,000.

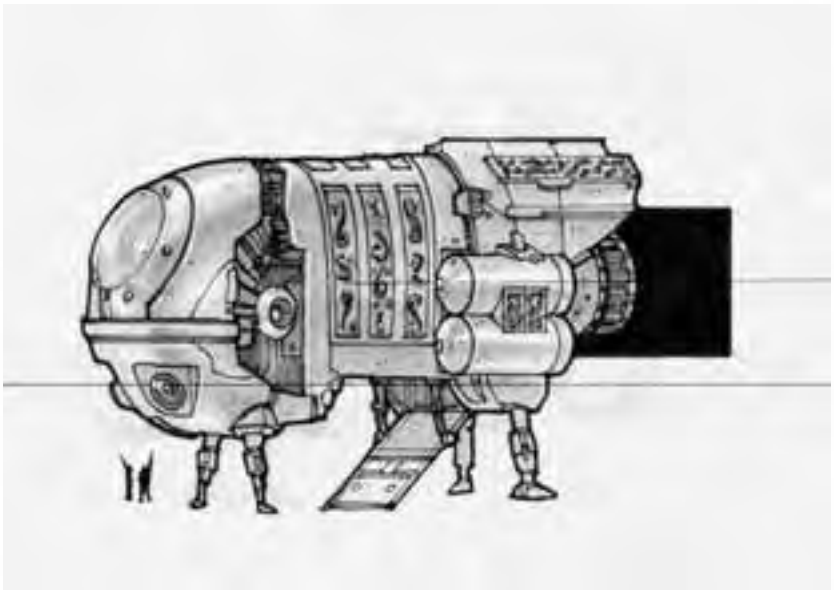
Stations: Pilot 1, Sensor 1.

Cargo: 100 tons.

Cost: 3,000,000 cr.

COURIERSHIP

Whether escorting noble personages or ferrying vital information, these ships are fast and secure transports. Courierships often have atmospheric capabilities, giving them a useful versatility. They can be used as scouts or to deploy elite units. Even primarily civilian models have military-quality stealth and shielding. Courierships are designed to be accompanied by light escorts, but they function well alone. The crewmembers aboard couriers are typically tasked with helping passengers.



FUEL

Most starship fuel consists of liquid deuterium and lithium in a suspension. Deuterium, an isotope of hydrogen, is found in regular water. A fuel refinery first filters water molecules containing one or two deuterium atoms. It then splits the oxygen and filters out regular hydrogen. The result is cooled and stored as liquid deuterium. Deuterium is, as a consequence, available cheaply throughout the Empire. In some cases deuterium is mined from the atmospheres of gas giants.

Lithium is used in a fusion reactor to produce tritium, another isotope of hydrogon. The most efficient fusion reactions are created from deuterium and tritium. Lithium releases tritium when bombarded with neutrons supplied by the fusion process itself.

Standard refueling drains helium and used lithium and then fills tanks with liquid deuterium. Lithium is stored as tiny pellets in suspension and fills a special layered conduit around the fusion chamber. Occasional cleaning of the lithium chambers is necessary.

Small fusion devices may use fusion with regular hydrogen, but the process is difficult and releases only a little more energy than it consumes.

Some scientists have suggested the use of antimatter in starship engines. Antimatter, when combined with matter, converts into energy with extremely high efficiencies. Much of this energy is in the form of energetic radiation, which poses a potential problem. There is no failsafe way to control the process, other than keeping matter away from antimatter. An accident with antimatter could destroy starships or whole regions of a planet. Mistakes with fusion, on the other hand, are usually more limited in their consequences, and fusion drives are actually very stable and safe. The most likely consequence of a fusion reactor mishap is that the equipment simply stops functioning.

The risks have limited exploration of antimatter as an energy system. Antimatter as an explosive has been given more attention, though the same danger of an accident has limited that research as well.

FORWARD OBSERVER

Vehicles are capable of communicating vital information about the enemy to one another. The simplest data gathered and communicated in this way is the presence and approximate location of targets. It takes one action for a sensor operator to transmit coordinates of known vehicles to all friendly ships within range.

A forward observing vehicle, or spotter, can also assist other targeting computers. The spotter may make the Use Device check for another ship's guided weapons. The DC is based on the position and capabilities of the observer, +2 for the more complicated task.

A forward observer may also make an acquire target action for one other vehicle. Multiple attempts to acquire a target can be performed and allocated to friendly vessels as desired.

Acquire target actions or guidance locks can be made for vessels out of the encounter range. Ground units or slow moving vehicles outside of the encounter can provide fire support.

Signal jammers will immediately negate any forward firing assistance.

RUNNING DARK

There are a variety of ways a vehicle can increase its stealth rating. Military vehicles may switch to tight-band transmissions. These are communications lasers and disguised signals that eliminate much of the noise coming from a vehicle. This provides a +1 bonus to the vehicle's stealth. Sending a message to friendly vehicles requires a target lock as if acquiring a target for guided weapons. Normal penalties apply. A retry requires another action, as does establishing a link with another vehicle. Once successful, further messages to the same craft require no further checks.

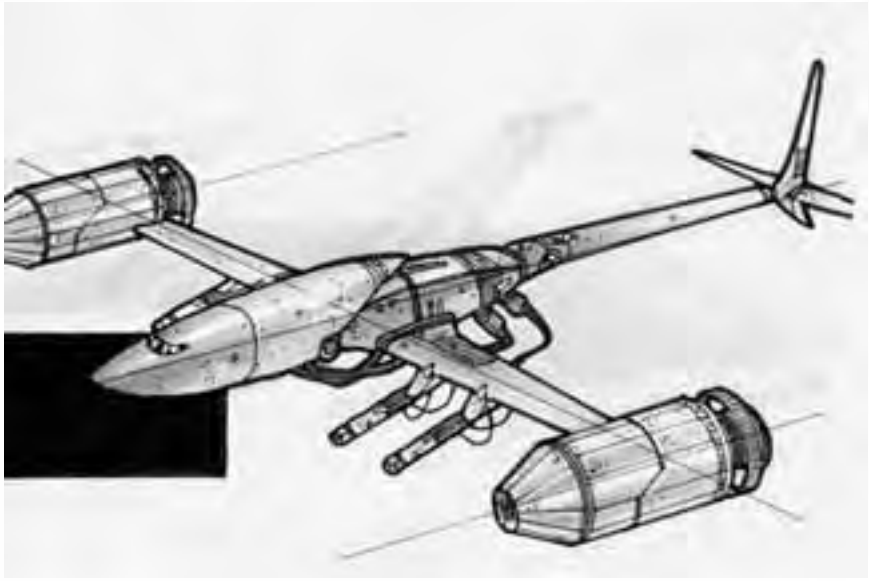
Shutting off all communications and secondary systems completely provides a +2 bonus to stealth. A vehicle may send tight-band transmissions while in this mode, but this reduces the bonus to +1 for that round. In space and underwater, shutting off communications and secondary systems grants a +4 bonus to stealth if the vehicle's current speed modifier is +0 or greater. Using active sensors eliminates the stealth bonus for running dark for that round.

Couriership: Gargantuan Vehicle; hp 100; Top Spd 40; Acc 7; Dec 7; Hand +6; Sensor +10; Stealth 15; AC 21 (–4 size, –5 Dex, +10 natural, +10 armor); SQ surveillance sensors, vehicle, hardness 20; Fuel 250,000/1.

Stations: Pilot 1, Sensor 1, Crew 5, Passenger 10.

Cargo: 15 tons.

Cost: 1,000,000 cr.



DRONE FIGHTER

A small cousin of the interceptor, the drone fighter sacrifices life support and other accoutrements necessary for a living pilot. Drones are manned by autonomous pilots, and these systems add 10,100 cr to the drone fighter's cost. A drone must make a targeting run before being able to attack a target and does not get the +2 bonus for doing so. This means drones typically fire once every other round, assuming the run is successful. Carriers can deploy drone fighters, replacing one interceptor with 10 drones. Drone fighters do not have starcasters.

Drone Fighter: Huge Vehicle; hp 90; Top Spd 50; Acc 10; Dec 10; Hand +8; Sensor +6; Stealth 15; AC 11 (–2 size, +5 natural, +3 armor, –5 Dex); SQ surveillance sensors, vehicle, hardness 10; Fuel 200,000.

Stations: Pilot 1.

Cargo: 100 lb.

Cost: 1,000,000 cr.

Weapon: Twin laser cannon (battery); Fire arc: Front; Attack bonus: +5 (targeting computer); Damage: 6d10x2; Range: 5.

GALINAK SNUBBER

"Snubber" is the general term for a host of small snub-fighter designs deployed by the orc raiders of the treacherous Galinak Reaches. Engineered for maximum performance amongst that region's asteroid fields and nebulae, the spaceborne fighter has no starcaster capabilities, and therefore must latch onto a carrier to teleport between systems. The simple design also prevents it from entering and operating in planetary environments where the fighter's delicate construction would quickly incinerate in the intense speeds and friction of atmospheric entry.

Snubbers prove formidable single-man fighters against unsuspecting victims of orc ambushes in the Galinak Reaches. Burst jets on the ends of maneuv spars give the craft incredible handling, a requirement for swiftly navigating the ever-changing asteroid fields that provide cover for the raiders. They prove most effective when swarming an enemy, laser cannons blazing, darting around asteroids, the target, and each other. Relatively cheap to manufacture in the orc space stations dotting the region, snubbers serve as expendable fighters. They are fast and cheap to construct, but also succumb to the rigors of combat more quickly than other, sturdier spacecraft. A squadron of eight snubbers supporting an orc frigate ambushing an armed merchant ship gets off easily if half the fighters return.

Since they can't teleport out of system on their own, Galinak snubbers rarely deploy far from orc-held regions. They prefer to operate out of asteroid bases and space stations rather than rely on shoddy orc carriers to jump to other locations. Since the snubber's construction is optimized for space operations, it cannot fly on its own into planetary environments. Even if a larger ship ferried a snubber to a world's surface for atmospheric flight, the fighter doesn't have enough power to escape a planet's gravity well on its own.

Galinak Snubber: Huge Vehicle; hp 80; Top Spd 50; Acc 9; Dec 9; Hand +11; Sensors +1; Stealth 15; AC 13 (–2 size, –5 Dex, +5 natural, +5 armor); SQ vehicle, hardness 8, maneuv spars; Fuel 250,000.

Stations: Pilot 1.

Cargo: 100 lb.

Cost: 1,000,000 cr.

Weapon: Twin laser cannons (battery); Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 6d10x2; Range: 5.

HEAVY LIFTSHIP

This is a cheap, onion-shaped transport primarily used to shuttle cargo or passengers between a planetary surface and orbital stations. Its maneuverability is extremely limited. Movement is much like the ballistic dropship, except its speed in atmosphere is 12 on the aircraft scale when descending and 10 when ascending.

Heavy Liftship: Gargantuan Vehicle; hp 100; Top Spd 12; Acc 5; Dec 2; Hand +2; Sensor +5; Stealth 5; AC 11 (–4 size, +5 natural, +5 armor, –5 Dex,); SQ vehicle, hardness 20; Fuel 25,000.

Stations: Pilot 1, Sensor 1.

Cargo: 100 tons.

Cost: 1,000,000 cr.

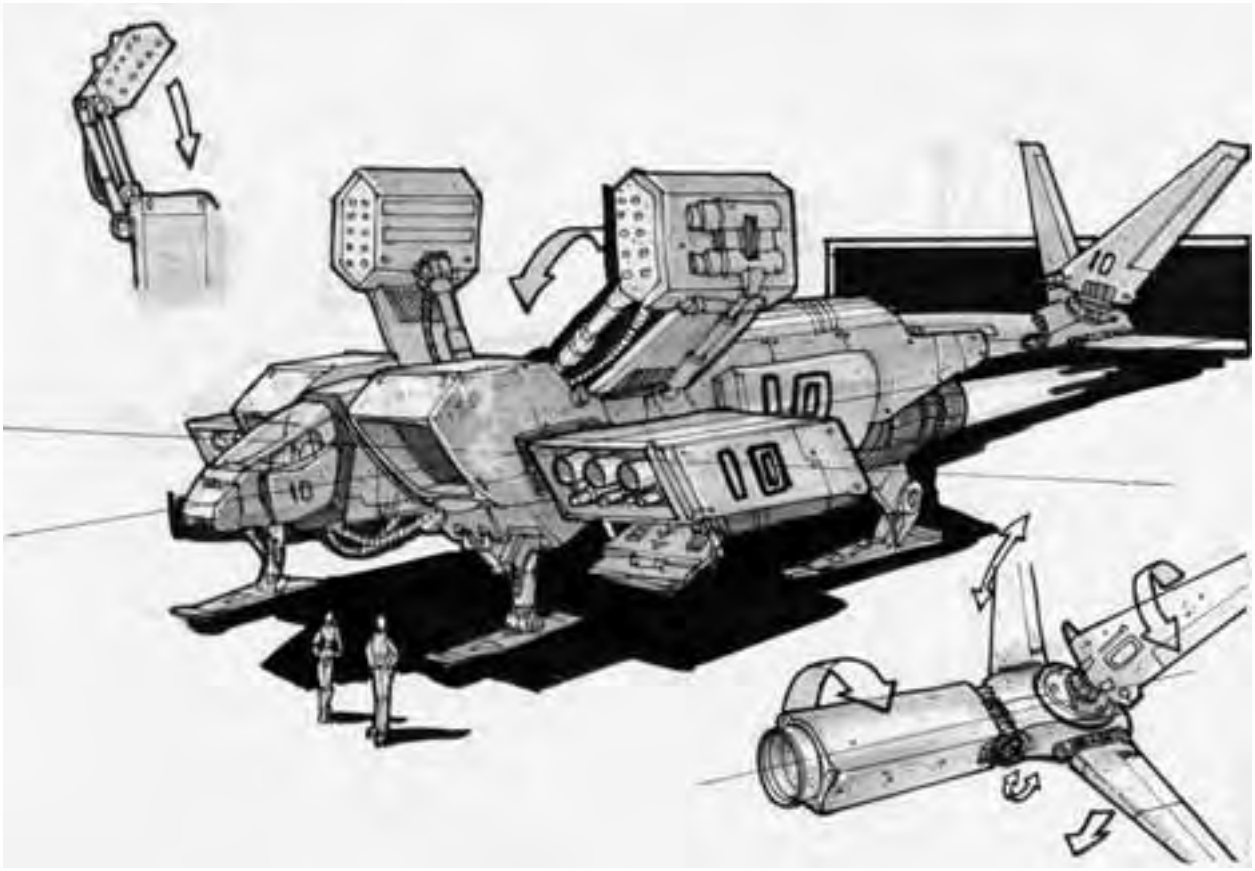
KELENBAUM DROPSHIP

The Kelenbaum dropship design is typical of craft engineered for swift deployment or extraction of infantry in hot combat zones. Although seemingly bulky in form, it includes essential systems to rapidly transport foot soldiers from high orbit, avoid defensive installations, clear enemy troops, and drop them off in a swiftly secured landing area.

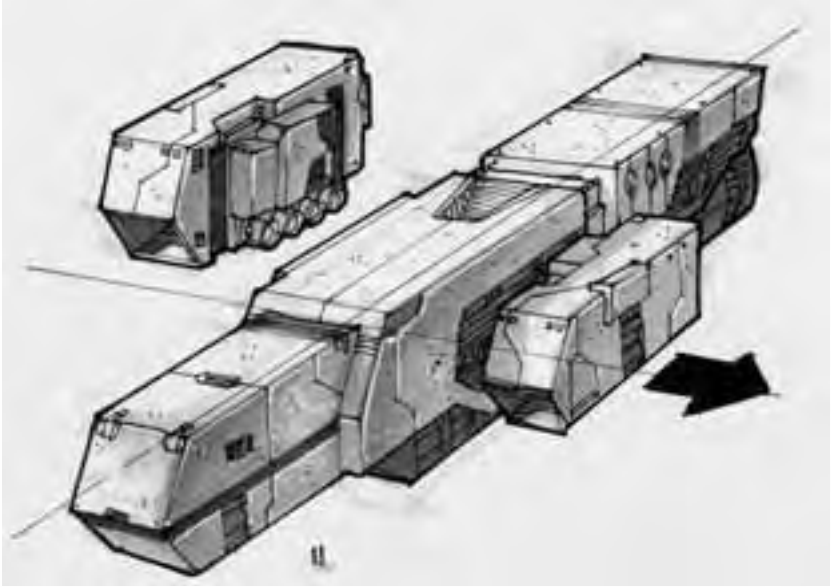
The drop ship foregoes some of the ordnance of a similarly sized ship, plus some degree of speed, in exchange for passenger accommodations and high maneuverability to slip into dangerous areas. It can carry up to one squad (12 soldiers) with command personnel and equipment, or one Large vehicle and its crew.

Dropships typically descend rapidly through a planet's atmosphere toward the intended landing zone, often dodging anti-starship defenses or enemy fighter craft. After leveling out, the vessel locates and navigates to the drop point, secures the area with generous fire from its laser cannon, and deploys the infantry squadron. Wide hatches on the port and starboard sides allow troops to deploy into an area while the craft's lasers blaze away at identified enemy positions. Where full landing isn't possible or desired, soldiers can repel down lines dropped from the hatches. Winches automatically reel in the synthetic ropes after a squad has deployed, or can haul up soldiers clipped to the lines' lower ends during extraction from dangerous terrain. The laser cannon turret is mounted on the ship's underside (and protected by the shields during atmospheric entry) to better target enemy ground forces in the landing zone and offer heavy firepower to support a disembarking squad.

Elite commando units frequently use the



Kelenbaum dropship for lightning strikes against special targets. The 181st Rapid Strike Brigade maintains a fleet of these craft for swift deployment from their posts around the galaxy. With its starcaster capability, the dropship can transport special units from planetary garrisons or bases away from their objective without ferrying infantry down from easily spotted troop carriers in orbit. Three dropships can insert an entire platoon, its equipment, and command personnel, creating a diversion for other ground attacks, establishing a secure landing area for other troops, or hitting a target well-protected from starfighter attacks.



Kelenbaum Dropship: Gargantuan Vehicle; hp 100; Top Spd 30; Acc 5; Dec 5; Hand +6; Sensors +5; Stealth 15; AC 21 (–4 size, –5 Dex, +5 natural, +5 armor, +10 shields); SQ vehicle, hardness 20; Fuel 250,000/1.

Stations: Pilot 1, Sensor 1, Gunner 1, Passengers 14.

Cargo: 500 lb.

Cost: 12,000,000 cr.

Weapon: Laser cannon; Fire arc: turret; Attack bonus: +5 (targeting computer); Damage: 6d10; Range: 5.

ORBITAL FREIGHTER

Though similar in design to a starship freighter, an orbital freighter has no starcaster and is designed strictly for moving bulk goods in orbit. It is designed with large bay doors for easy access to cargo holds. With a few adjustments and maneuvers, it can unload its entire cargo in minutes. It simply drifts away from the stationary mass of linked cargo containers. It can then be maneuvered more carefully around another mass of containers. Some freighters are designed for liquid cargo, such as deuterium fuel. These have 90% of normal cargo space, but the cargo must be piped in or out of the tanks. Filling or emptying a freighter requires 10 minutes.

Orbital Freighter: Colossal II Vehicle; hp 300; Top Spd 5; Acc 2; Dec 2; Hand –6; Sensor +0; Stealth -2; AC 1 (–16 size, +12 natural, -5 Dex,); SQ vehicle, hardness 40; Fuel 50,000.

Stations: Sensor 3, Crew 25.

Cargo: 1,500 tons.

Cost: 2,000,000 cr.

ORBITAL SHUTTLE

These ships are intended for transporting small amounts of goods and passengers between stations. They cannot fly in an atmosphere.

Orbital Shuttle: Huge Vehicle; hp 90; Top Spd 25; Acc 4; Dec 3; Hand +10; Sensor +0; Stealth 5; AC 3 (–2 size, –5 Dex); SQ vehicle, hardness 10; Fuel 10,000.

Stations: Pilot 1, Passenger 6.

Cargo: 5 tons.

Cost: 40,000 cr.

OUTLAND TRADER

Intrepid entrepreneurs find new markets in the savage Outlands, uncivilized regions where imperial law holds a tenuous grasp yet where opportunities for vast profits and good business abound. Merchants ply the trade routes between these worlds where they can sell items of technology to backward natives, and discover and exploit natural and cultural resources hitherto unseen in the Dragon Empire.

This trading vessel was designed as a mobile shop to set down, open up, and barter with locals on backwater worlds. The command and crew sections sit forward of the main cargo bay, with engines and other ship systems aft. When it's landed, the ship sits flush with the ground, resembling—to many simplistic inhabitants of outland planets, at least—a squat metal building with a bulky annex on one side (the engines) and a smaller living area on the other (the crew compartments), framing a gaping door that allows entrance into the "shop." The cargo area serves as an impromptu market, its large side hatch sliding up to

allow natives a chance to enter, inspect goods for sale, and barter or purchase technological items rare to their world. Hatches leading to the forward and aft sections of the ship from the freight area remain sealed when the main cargo door stands open, minimizing the chances of primitive outlanders sneaking aboard and meddling with the engines or cockpit.

Outland traders feature several other characteristics that help make them ideal for hopping between simple borderland worlds engaging in merchant activities. Despite an increased cargo capacity for a ship of its size, it maintains an impressive top speed and agile handling. A turreted laser cannon just above the cockpit offers adequate defense against potential threats in space (pirates, raiders, bounty hunters, smuggles, rival merchants) as well as enemies on land who might mistake the ship for some demon from the skies sent to upset their civilization's delicate social and political balance.

Outland Trader: Gargantuan Vehicle; hp 100; Top Spd 30; Acc 5; Dec 5; Hand +5; Sensor +5; Stealth 15; AC 9 (–4 size, –5 Dex, +5 natural, +3 armor); SQ vehicle, hardness 20; Fuel 250,000/1.

Stations: Pilot 1, Gunner 1, Passengers 4.

Cargo: 50 tons.

Cost: 5,000,000 cr.

Weapon: Laser cannon; Fire arc: turret; Attack bonus: +5 (targeting computer); Damage: 6d10; Range: 5.

SENSOR DRONE

Used primarily as forward observers, these drones also function as perimeter watchdogs. They are manned by pilot boxes, adding 4,000 cr to the cost of the drone. Sensor drones can be loaded into torpedo bays and launched. Drones do not have starcasters.

Sensor Drone: Diminutive Vehicle; hp 20; Top Spd 40; Acc 10; Dec 10; Hand +10; Sensor +10; Stealth 25; AC 9 (+4 size, –5 Dex); SQ surveillance sensors +10, vehicle, hardness 1; Fuel 100,000.

Stations: Pilot 1.

Cargo: None.

Cost: 1,000 cr.

STARLINER

These ships are comfortable, luxurious passenger vessels that allow the imperial elite to travel throughout the Empire. Each liner is a miniature city, with shops, small parks, and other features. Some citizens spend decades saving up for a voyage on a liner. Typically, the ship cruises through a tour of the planets, stopping off at popular ports in orbit. Passengers can shuttle down to the surface to take in the sights, buy merchandise, and enjoy themselves. Cruises also offer breathtaking views in space, such as the iridescent stellar flares of Unlamod. The capital planets have many liners continuously circling through the major trading lanes. In outlying regions, however, passenger liners require escort against potential dangers. They are slow, sluggish, and relatively fragile.

A variety of mobile stations are built much like passenger liners. Lacking some of the frills, they function as towns or cities in space. Some of these communities focus on some specialized type of work. Military stations typically have shields and weapons or escorts.

Starliner: Colossal III Vehicle; hp 400; Top Spd 5; Acc 2; Dec 2; Hand –8; Sensor +0; Stealth 1; AC 1 (–32 size, –5 Dex, +18 natural, +10 armor); SQ vehicle, hardness 50; Fuel 100,000/5.

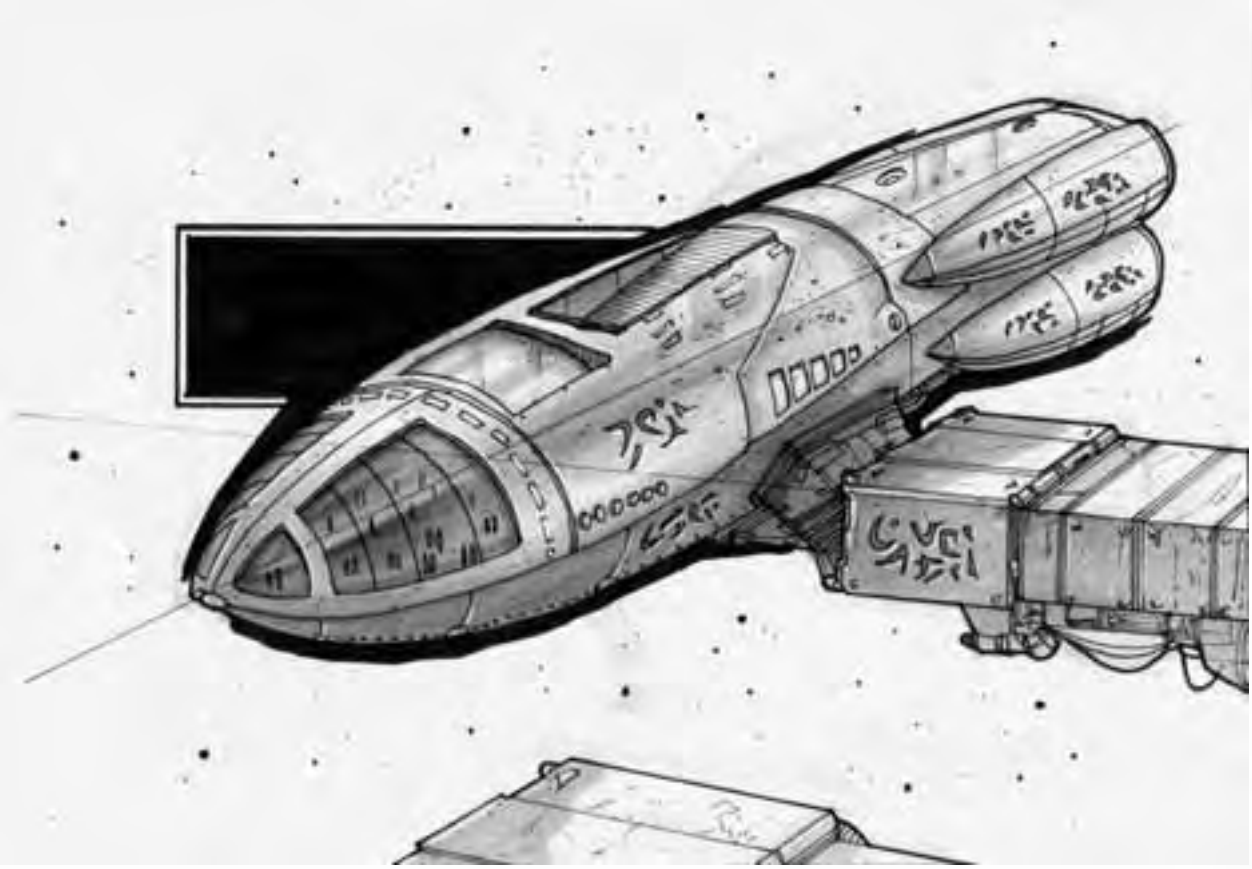
Stations: Sensor 5, Crew 200, Passenger 800.

Cargo: 1,000 tons.

Cost: 100,000,000 cr.

SURVEILLANCE DRIFTER

When intelligence concerns require careful monitoring of a system's communication transmissions and starship traffic, a surveillance drifter slips into the area, establishes a stable orbit around some dead outer planet, moon, or asteroid, and uses its enhanced sensor suite to keep a quiet eye on things.



The drifter bristles with uneven surfaces, sensor arrays, communications gear, and exterior systems to break up its recognizable profile and blend more with the space debris or asteroids among which it hides. It prefers to conceal itself just within range of its surveillance subject, passively monitoring activity until it's gathered enough intelligence or is discovered by hostile forces. A twin plasma cannon battery provides point defense, but the drifter's survival relies more on teleporting to another system with its starcaster than standing up in a fight against military craft.

Most intelligence organizations within the Dragon Empire employ surveillance drifters to gather information about external threats and internal dissenters. Some criminal syndicates operate these ships to keep tabs on competitors, monitor the authorities, and assess new markets. Independent intelligence outfits run their own drifters, collecting data and monitoring activity for well-paying clients who protect their anonymity. The ISPD occasionally hires these data mercenaries through third parties to surreptitiously monitor its enemies, though the organization maintains its own fleet of highly specialized surveillance ships for special operations.

Surveillance Drifter: Colossal Vehicle; hp 200; Top Spd 25; Acc 3; Dec 3; Hand +4; Sensors +15; Stealth 17; AC 18 (–8 size, –5 Dex, +6 natural, +3 armor, +12 shields); SQ vehicle, hardness 30, sensor baffles, surveillance sensors; Fuel 150,000/3.

Stations: Pilot 1, Sensor 5, Gunner 1, Crew 20.

Cargo: 25 tons.

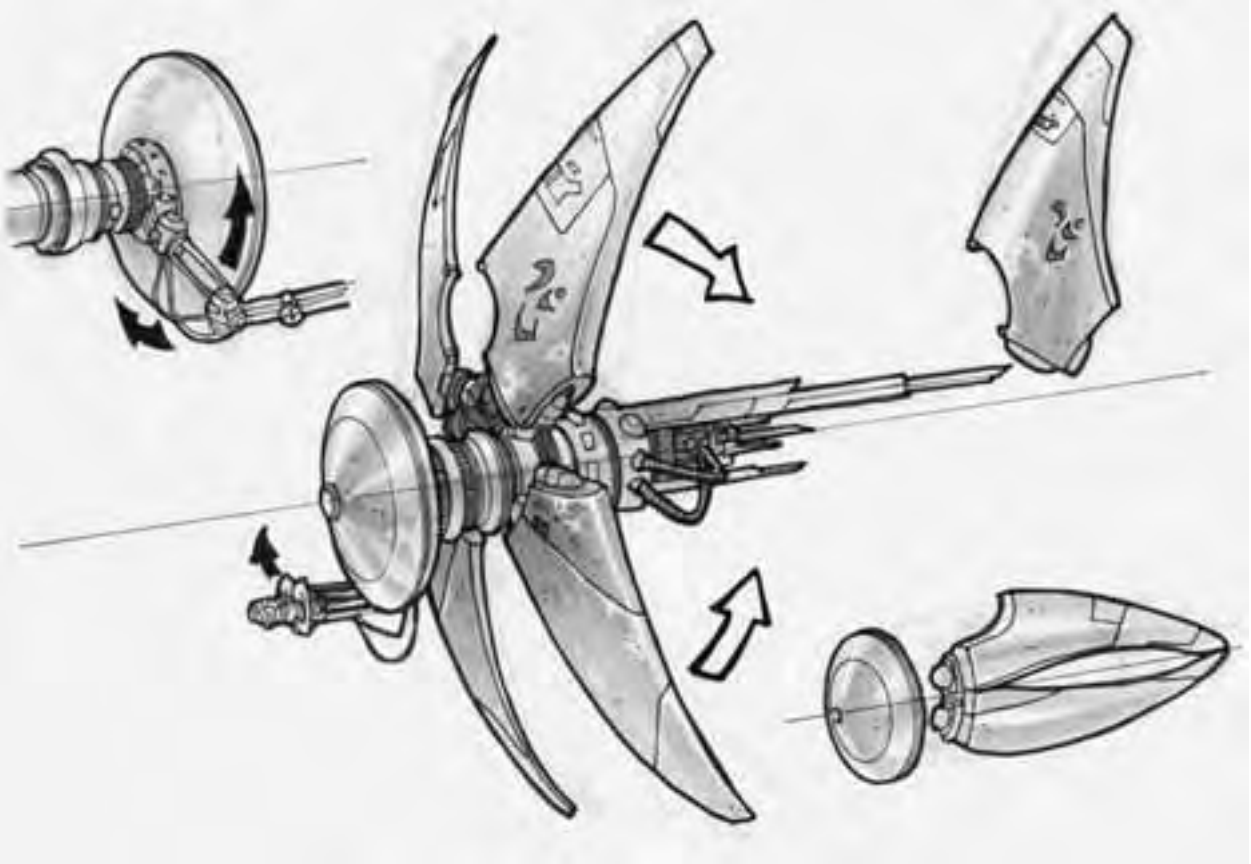
Cost: 75,000,000 cr.

Weapon: Twin plasma cannons (battery); Fire arc: turret; Attack bonus: +5 (targeting computer); Damage: 10d10x2; Range: 10.

SWIFT COURIER

The swift courier descends from the proud tradition of heralds who used to ride through kingdoms on the fastest steeds spreading vital news, accompanying important personages, and delivering items of great value. Converted from an interceptor-style craft, the courier consists of a pilot and passenger cockpit and small cargo compartment mounted forward of the engines, fuel cells, starcaster, maneuverability thrusters, and other systems that make this starship ideal for escaping a planet's gravitational field before teleporting to other worlds.

The courier was designed to flee from opponents rather than face them. Not as bulky and well-armored as a warship, it depends on its speed and agility to



outpace foes to a point where it can use its starcaster to jump to safety. It's high speed and exceptional handling help it evade enemies, weave its way through blockades, and dodge orbital defensive emplacements. While armor and shields protect it in combat, the ship's plasma cannon provides adequate firepower should direct confrontation prove inevitable or even necessary in carrying out its mission.

The Dragon Empire maintains a fleet of swift couriers, the Imperial Heralds, to quickly deliver high-priority goods, personnel, or information. In an age where electronic and magical means of communication over interstellar distances prevail, some instances still exist where direct, face-to-face communication proves better. The ability to transport an eminent diplomat across the galaxy with all possible haste can mean the difference between peace and slaughter in a remote brushfire war. Imperial personnel would rather trust an expert courier pilot to deliver items of great importance, despite the risk of pirates, interception, and astrographical hazards.

The governments of some prominent planets, high-profile corporations, sector governors, and ancient cultural institutions also use swift couriers for their own need for fast, reliable transportation of valuable goods, information, and personnel.

Swift Courier: Gargantuan Vehicle; hp 80; Top Spd 42; Acc 7; Dec 7; Hand +6; Sensors +5; Stealth 15; AC 21 (–4 size, –5 Dex, +5 natural, +5 armor, +10 shields); SQ vehicle, hardness 10; Fuel 250,000/1.

Stations: Pilot 1, Passengers 2.

Cargo: 500 lb.

Cost: 12,000,000 cr.

Weapon: Plasma cannon; Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 10d10; Range: 10.

UTILITY SLED

This device is a small personal propulsion unit. It can be attached to a variety of vac suits. A sled can also be ridden or used as a small tug. Military versions have stealth 25.

Utility Sled: Diminutive Vehicle; hp 20; Top Spd 3; Acc 2; Dec 1; Hand +19; Sensor +0; Stealth 15; AC 9 (+4 size, –5 Dex); SQ vehicle, hardness 1; Fuel 150.

Stations: Pilot 1.

Cargo: 500 lb.

Cost: 500 cr.

WAYFARER

This starship is capable of functioning in nearly any environment. It can hover and fly in an atmosphere, sail on an oceanic surface, or operate at up to 10 atmospheres of pressure underwater or in a dense atmosphere. Though a bit expensive, it is a popular choice for explorers of all kinds. The two biggest markets for the wayfarer are mining corporations and special operations units.

Wayfarer: Gargantuan Vehicle; hp 100; Top Spd 30; Acc 4; Dec 4; Hand +2; Sensor +5; Stealth 10; AC 11 (–4 size, –5 Dex, +5 natural, +5 armor); SQ vehicle, hardness 20; Fuel 250,000/1.

Stations: Pilot 1, Sensor 1.

Cargo: 25 tons.

Cost: 2,500,000 cr.

WYVERN ASSAULT FIGHTER

Developed by military engineers to serve as a heavy fighter-bomber, the wyvern assault fighter packs stern firepower in a small package. At home in both the vacuum of space and gravity wells of planetary atmospheres, the craft presents a slim target profile that can maneuver close enough to the objective to deliver devastating blows with its missile launcher and twin plasma cannons. While dodging enemy defensive fire, wyverns typically raze ground forces on their approach, then open up on the main target with a barrage of high-explosive armor-piercing missiles.

Equipped with starcasters and sufficient consumables for the three crewmembers, wyverns range independent of carriers or bases. They can assemble in a distant system, teleport to the destination world, and swiftly move in to eliminate the target. Unfortunately the increased weapons and armor load slows the wyvern's performance and maneuverability—the two weapons officers sit just behind the pilot, who focuses his entire attention and strength to fly the often ungainly craft.

The Imperial Navy uses dedicated wyvern squadrons to take out difficult surface and spaceborne objectives. Its popularity with the public surged when deployed with the aggressive and unpredictable tactics of the Imperial Navy's infamously merciless 86th Air Strike Squadron. One wyvern assault fighter proves a formidable opponent for most lone pirate and smuggler vessels; an entire squadron can successfully cripple or even destroy larger vessels without support from other ships of the line.

Given their varied operational profile, older wyverns often find their way into the system defense forces of backwater worlds, fleets of pirate raiders, and escorts of planetary royalty or criminal nobility. For those who can't afford their own navy, the wyvern serves as a versatile craft with the performance of a low-end fighter and the heavy firepower of a bomber.

Wyvern Assault Fighter: Gargantuan Vehicle; hp 120; Top Spd 25; Acc 4; Dec 4; Hand +4; Sensors +5; Stealth 15; AC 21 (–4 size, –5 Dex, +5 natural, +5 armor, +10 shields); SQ vehicle, hardness 20; Fuel 250,000/1.

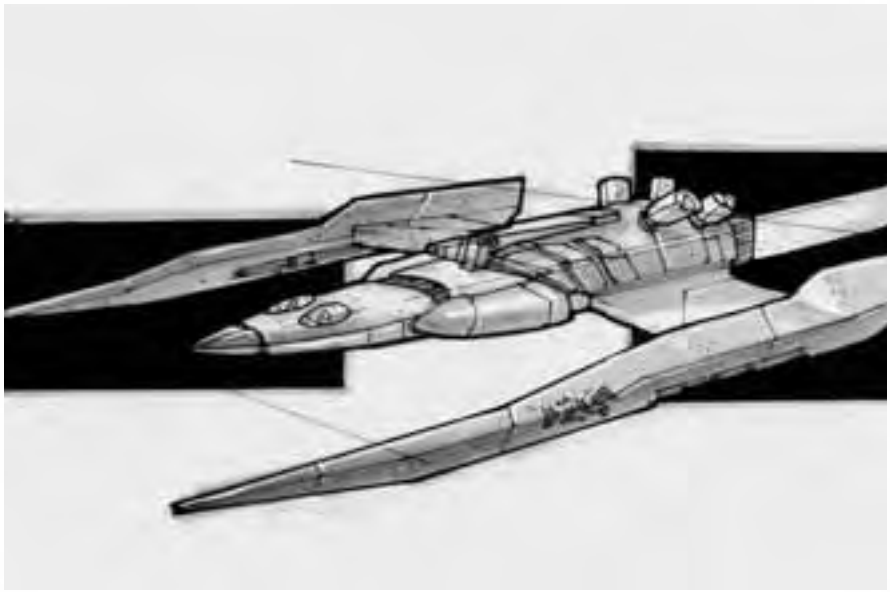
Stations: Pilot 1, Gunner 2.

Cargo: 500 lb.

Cost: 17,000,000 cr.

Weapon: Twin plasma cannons (battery); Fire arc: front; Attack bonus: +5 (targeting computer); Damage: 10d10x2; Range: 10.

Weapon: Multishot missile launcher (16); Fire arc: front; Damage: By missile; Speed: By missile.



Vehicle Design

A near-infinite variety of vehicles travel across the planets and between the systems of the **Dragonstar** universe. Water skimmers link tiny island communities on aquatic worlds. Massive, tracked harvesters plant and gather crops for agricultural communes. Prison ships transport the galaxy's convicts, insurgents, and undesirables to penal colonies. Pirates modify starships to better disable and board unsuspecting passenger liners and cargo caravans. The numerous ships of the Imperial Navy step in to enforce peace, influence regional brushfire wars, and protect the space lanes from marauders, invaders, and astrographical threats.

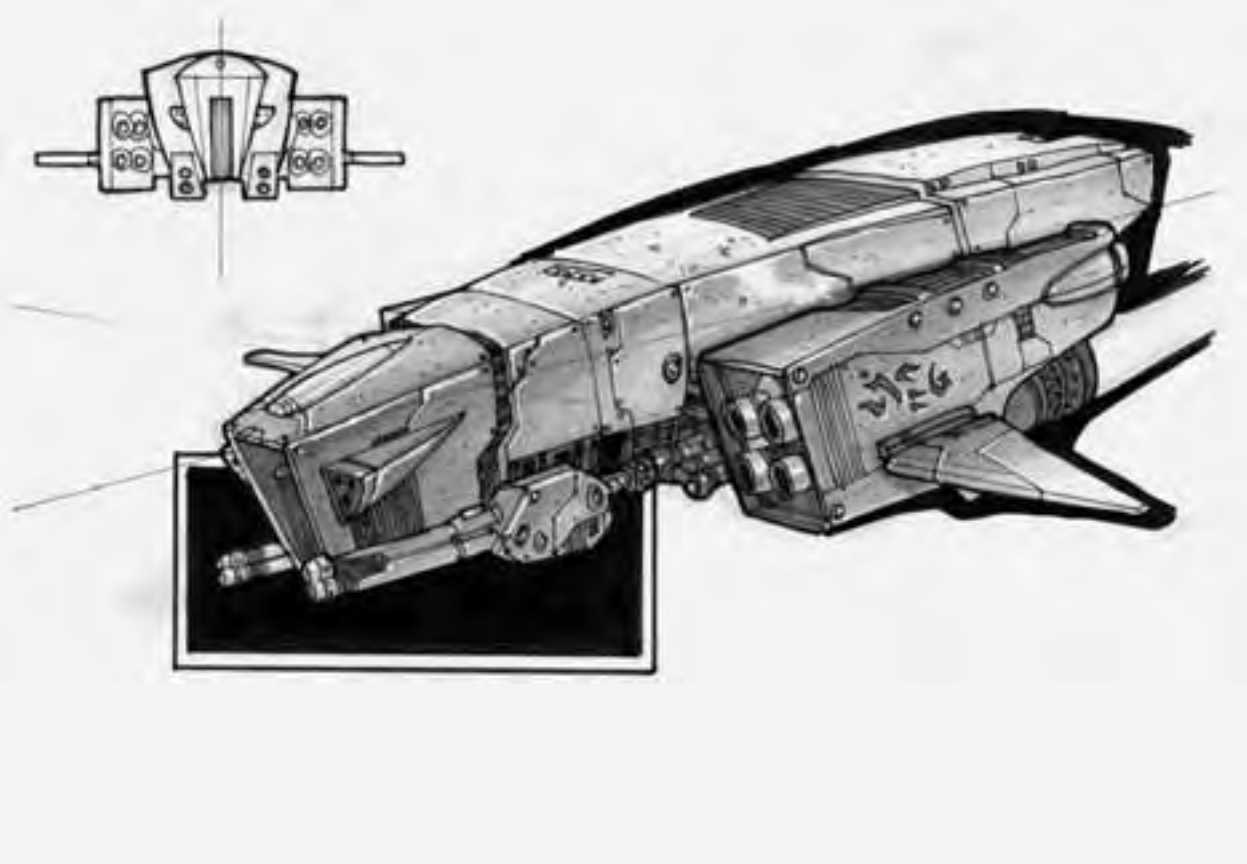
Creating original vehicles for **Dragonstar** involves balancing many factors to form a craft to fulfill a specific mission profile and effectively traverse a particular kind of terrain. These two considerations—mission profile and terrain—serve as the starting point in developing and statting out a vehicle.

These guidelines are far from a precise, mathematical system. They serve to guide DMs and players in creating vehicles with useful purposes in the game—vehicles for plots, settings, and other story elements to enhance the game. These guidelines are best used as a structure to organize the choices and decisions of the vehicle designer. These guidelines create vehicles with stats that approximate those for vehicles found in the *Starfarer's Handbook* and in this volume. They are not exact, however, and as guidelines, they are always subject to tweaking by the DM.

These guidelines offer ranges of stats within which certain kinds and sizes of craft fall, but they are by no means absolute. The magic and technology of the Dragon Empire provide for an immense range of vehicle performance, exceptions to rules, and overall variety to the galaxy. One economic fact still holds fast: All guidelines assume that the more deviation in favor of bonuses—whether for Armor Class, speed, handling, hit points, or weaponry—the greater the vehicle's cost.

Craft Concept

Vehicle designers don't just randomly assimilate parts into a workable craft; it's not always possible to merge different forms of propulsion, weaponry, and system configuration into an effective vehicle. Engineers begin with a concept for their craft, often an assignment from their liege, corporation, or



KELENBAUM DESIGN ORDER

To: Kelenbaum Engineering Consortium
From: Kelenbaum Diversity Enterprises
Re: Skiffer Model E-298

The transport council of KDE requests the assistance of the engineering consortium in designing, assembling, testing, and mass-producing a twin-engine light cargo hauler with substantial speed and maneuverability for planetary use. The unarmed craft should be simple enough for one pilot to operate, though a single passenger (or co-pilot) station may be added for balance and symmetry.

Although intended for near-ground hover flight, the skiffer should have adequate altitude capabilities for cruising above obstacles or moderately rough terrain. The Model E-298 skiffer is slated for deployment on worlds with standard gravity, open geography with occasional obstacles, and great distances to cover between settlements. Its missions will primarily include transporting vital agricultural supplies, medicine, and seedlings, as well as messages and news in case of communication disruptions.

Questions regarding specific and significant design elements that arise during planning should pass before the KDE transport council.

GULVAK'S DECREE

By order of Her Most Supreme Bruteness, the Primatrix of Galinak, Gulvak the Foul, the crew and slaves of Naster station must assemble a raider frigate to subdue and board enemy trading vessels. You must use the hulls and salvaged systems from captured vessels in your supply orbit; the Primatrix can offer no additional materials. You must build a frigate with adequate armor and ordnance to withstand enemy fire, but with sufficient maneuverability to use the asteroids in the Reaches in ambush and evasion.

The Primatrix will execute senior construction leaders (and their mates) and enslave all free orcs on Naster station if this project is not completed in time to help the brigand fleet intercept the next Kelenbaum caravan from Suvaal.

patron. You must initially determine what function the craft should serve and what terrain it is intended to navigate.

A vehicle's mission profile often fits into a simple description: personnel transport, scout flitter, ore hauler, fighter, dropship, bomber, warship, carrier, etc. You can easily elaborate on this through the craft's individual text description and its game statistics. This simple mission profile helps determine the vehicle's size as well as armament specifications. An immense carrier or warship has a greater capacity for weapons, armor, and shielding than a light patrol craft, but it is also less maneuverable and easier to hit.

You should also take into account the terrain a vehicle must traverse: water, open ground, rocky expanses, or even outer space. The travel environment affects what kind of propulsion system drives the craft. Ground vehicles rely on wheels, tracks, articulated limbs, or hover technology. Aircraft fly through the atmosphere but do not have the capability to leave a planet's gravity well and operate in orbit or deep space. Ocean-going vessels require sleek hulls and engines to move through water efficiently. A vehicle's propulsion system affects various aspects of its performance, including top speed, acceleration/deceleration, and handling.

With these considerations in mind, you can begin designing a useful craft to fulfill a particular purpose in the game.

Size

A vehicle's size affects its entire design. Most craft designed for surface travel vary from Medium to Huge. Waterborne craft range from Small to Colossal IV, or even larger, though those that travel underwater tend to more compact sizes to better withstand pressure at greater depths and to maximize hydrodynamics. Personal flight devices (like jet harnesses and gliders) can range from Small to Large. Those vehicles engineered for powered, long-distance flight within an atmosphere frequently fall in the Huge or larger categories—anything smaller couldn't accommodate the massive engines required to sustain lift over long distances. The minimum size for spacecraft is Huge (for dropships and orbital craft), though most range from Gargantuan to Colossal VI. Exceptions to size limitations exist, especially given the diversity of technology and magic throughout the Dragon Empire.

Size becomes a baseline that determines various characteristics for a vehicle. It affects many aspects

of a craft's specifications later in the design process, including its Armor Class modifier, base hit points, hardness, fuel costs, handling, stealth, and shield capacity. When creating a new craft, choose one of the following templates to serve as the basic framework for your vehicle. Record the base statistics for the template—later on, you'll be able to modify each entry as you design your vehicle from the ground up.

FINE VEHICLE

Base Hit Points: 10
Top Speed: 40
Acceleration: 10
Deceleration: 20
Handling: +8
Sensor: +0
Stealth: 30
Armor Class: 13 (+8 size, –5 Dex)

Special Qualities: Vehicle, hardness 0
Fuel: 1,200
Stations: Pilot 1*
Cargo: 10 lb.
Weapon: None
Base Cost: 300 cr

DIMINUTIVE VEHICLE

Base Hit Points: 20
Top Speed: 35
Acceleration: 8
Deceleration: 16
Handling: +6
Sensor: +0
Stealth: 25
Armor Class: 9 (+4 size, –5 Dex)

Special Qualities: Vehicle, hardness 1
Fuel: 1,000
Stations: Pilot 1*
Cargo: 20 lb.
Weapon: None
Base Cost: 400 cr

TINY VEHICLE

Base Hit Points: 30
Top Speed: 30
Acceleration: 6
Deceleration: 12
Handling: +4
Sensor: +0
Stealth: 20
Armor Class: 7 (+2 size, –5 Dex)

Special Qualities: Vehicle, hardness 2
Fuel: 800
Stations: Pilot 1*
Cargo: 30 lb.
Weapon: None
Base Cost: 500 cr

* Creatures must ordinarily be no more than one size category larger than a vehicle to use it effectively. For example, only creatures of Small size or less can use a Tiny vehicle in most circumstances.

SMALL VEHICLE

Base Hit Points: 40
Top Speed: 25
Acceleration: 4
Deceleration: 8
Handling: +2
Sensor: +0
Stealth: 15
Armor Class: 6 (+1 size, –5 Dex)

Special Qualities: Vehicle, hardness 4
Fuel: 600
Stations: Pilot 1
Cargo: 40 lb.

Weapon: None
Base Cost: 600 cr

MEDIUM-SIZE VEHICLE

Base Hit Points: 50
Top Speed: 20
Acceleration: 2
Deceleration: 4
Handling: +0
Sensor: +0
Stealth: 10
Armor Class: 5 (–5 Dex)
Special Qualities: Vehicle, hardness 6
Fuel: 400
Stations: Pilot 1, Passenger 1
Cargo: 50 lb.
Weapon: None
Base Cost: 700 cr

LARGE VEHICLE

Base Hit Points: 70
Top Speed: 18
Acceleration: 1
Deceleration: 3
Handling: –1
Sensor: +0
Stealth: 5
Armor Class: 4 (–1 size, –5 Dex)

Special Qualities: Vehicle, hardness 8
Fuel: 300
Stations: Pilot 1, Passenger 4
Cargo: 200 lb.
Weapon: None
Base Cost: 6,300 cr

HUGE VEHICLE

Base Hit Points: 90
Top Speed: 16
Acceleration: 1
Deceleration: 2
Handling: –2
Sensor: +0
Stealth: 3
Armor Class: 3 (–2 size, –5 Dex)
Special Qualities: Vehicle, hardness 10
Fuel: 250
Stations: Pilot 1, Passenger 6
Cargo: 1,000 lb.
Weapon: None
Base Cost: 17,000 cr

GARGANTUAN VEHICLE

Base Hit Points: 100
Top Speed: 14
Acceleration: 1
Deceleration: 1
Handling: –4
Sensor: +0
Stealth: 2
Armor Class: 6 (–4 size, –5 Dex, +5 natural)

Special Qualities: Vehicle, hardness 20
Fuel: 200

Stations: Pilot 1, Passenger 10

Cargo: 2,000 lb.
Weapon: None
Base Cost: 25,000 cr

COLOSSAL VEHICLE

Base Hit Points: 200
Top Speed: 12
Acceleration: 1

Deceleration: 1

Handling: –6

Sensor: +0
Stealth: 1

Armor Class: 3 (–8 size, –5 Dex, +6 natural)

Special Qualities: Vehicle, hardness 30
Fuel: 150
Stations: Pilot 1, Passenger 100
Cargo: 10 tons
Weapon: None
Base Cost: 50,000 cr

COLOSSAL II VEHICLE

Base Hit Points: 300
Top Speed: 10
Acceleration: 1
Deceleration: 1
Handling: –6
Sensor: +0
Stealth: 1
Armor Class: 1 (–16 size, –5 Dex, +12 natural)
Special Qualities: Vehicle, hardness 40
Fuel: 150
Stations: Pilot 1, Passenger 250
Cargo: 50 tons
Weapon: None
Base Cost: 100,000 cr

COLOSSAL III VEHICLE

Base Hit Points: 400
Top Speed: 8
Acceleration: 1
Deceleration: 1
Handling: –8
Sensor: +0
Stealth: 1
Armor Class: –7 (–32 size, –5 Dex, +20 natural)
Special Qualities: Vehicle, hardness 50
Fuel: 150
Stations: Pilot 1, Passenger 500
Cargo: 100 tons
Weapon: None
Base Cost: 200,000 cr

COLOSSAL IV VEHICLE

Base Hit Points: 600
Top Speed: 6
Acceleration: 1
Deceleration: 1
Handling: –8
Sensor: +0
Stealth: 1
Armor Class: –29 (–64 size, –5 Dex, +30 natural)
Special Qualities: Vehicle, hardness 60
Fuel: 100
Stations: Pilot 1, Passenger 1,000
Cargo: 500 tons
Weapon: None
Base Cost: 400,000 cr

COLOSSAL V VEHICLE

Base Hit Points: 800
Top Speed: 6
Acceleration: 1
Deceleration: 1
Handling: –10
Sensor: +0
Stealth: 1
Armor Class: –63 (–128 size, –5 Dex, +60 natural)
Special Qualities: Vehicle, hardness 80
Fuel: 100
Stations: Pilot 1, Passenger 2,000
Cargo: 1,000 tons

Weapon: None
Base Cost: 800,000 cr

COLOSSAL VI VEHICLE

Base Hit Points: 1,000
Top Speed: 4
Acceleration: 1
Deceleration: 1
Handling: –10
Sensor: +0
Stealth: 1
Armor Class: –131 (–256 size, –5 Dex, +120 natural)
Special Qualities: Vehicle, hardness 100
Fuel: 100
Stations: Pilot 1, Passenger 3,000
Cargo: 2,000 tons

Weapon: None
Base Cost: 1,500,000 cr

BASE VEHICLE STATISTICS

Size	AC Modifier	Max Length	Max Weight	Base Hit Points	Hardness	Fuel Cost
Fine	+8	6 in.	10 lb.	10	0	1 cr
Diminutive	+4	1 ft.	50 lb.	20	1	2 cr
Tiny	+2	2 ft.	100 lb.	30	2	3 cr
Small	+1	4 ft.	500 lb.	40	4	5 cr
Medium	+0	8 ft.	2,000 lb.	50	6	10 cr
Large	–1	16 ft.	10,000 lb.	70	8	20 cr
Huge	–2	32 ft.	50,000 lb.	90	10	40 cr
Gargantuan	–4	64 ft.	500,000 lb.	100	20	80 cr
Colossal	–8	128 ft.	1,000,000 lb.	200	30	150 cr
Colossal II	–16	256 ft.	5,000,000 lb.	300	40	300 cr
Colossal III	–32	512 ft.	50,000,000 lb.	400	50	600 cr
Colossal IV	–64	1,024 ft.	100,000,000 lb.	600	60	1,200 cr
Colossal V	–128	2,048 ft.	500,000,000 lb.	800	80	2,400 cr
Colossal VI	–256	4.096 ft.	100,000,000,000 lb.	1,000	100	5,000 cr

VEHICLE COST MODIFIERS

Vehicle Type	Cost Modifier
Wheeled vehicle	+0 cr
Tracked vehicle	+1,000 cr per size category
Walker	+2,000 cr per size category
Hovercraft	+2,500 cr per size category
Watercraft	+1,500 cr per size category
Submarine	+5,000 cr per size category
Aircraft	+5,000 cr per size category
Spacecraft	+50,000 cr per size category
Military spacecraft	total cost x3

Example I

The Kelenbaum Engineering Consortium design team decides the Model E-298 skiffer should have a compact design for speed and maneuverability, while retaining the capacity to haul a substantial amount of cargo. With a hull consisting of a central, streamlined cargo capsule with an engine mounted on each side, the skiffer comes in at about 15 feet, putting it into the Large size category.

Example II

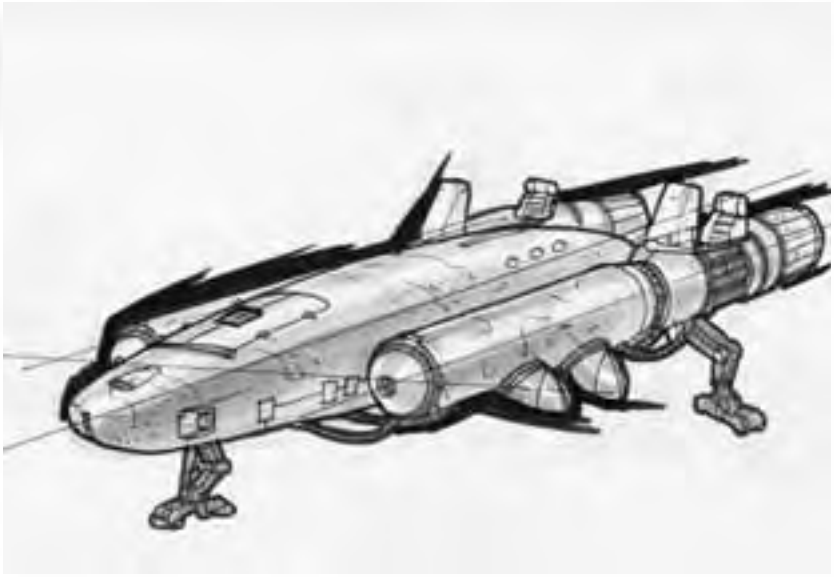
The Naster stardock boss takes stock of the salvaged vessels orbiting the station. With enough spot hull plates, he can cobble together a frigate large enough to fit the Colossal size category.

MODIFYING VEHICLES

Once you have selected a base vehicle template, you can modify the craft to fit your design profile. First, you should modify the vehicle's base cost according to its type. Determine the vehicles type and consult the above table.

Example I

The Model E-298 is a Large vehicle, so its base cost is 6,300 credits. It's a hovercraft, so the cost modifier is 2,500 cr per size category. The Large vehicle has six size categories, so its total cost modifier for vehicle type is 15,000 credits. The modified cost of the Large hovercraft is therefore 21,300 cr (6,300 + 15,000).



Example II

The frigate is a Colossal vehicle, so its base cost is 50,000 cr. It's a spacecraft, so the cost modifier is 50,000 cr per size category. The frigate has nine size categories, so its total cost modifier for vehicle type is 450,000 cr. The modified cost of the Colossal spacecraft is therefore 500,000 cr (50,000 + 450,000). The frigate will be a military vessel, so its total cost, once all modifications have been made, will be multiplied by three.

Once you have determined your vehicle's size and type, you can modify each of its individual components. Consult the table on page 120 to determine the cost of various upgrades.

Each entry on the table includes three numbers. The first number is the cost of a one-unit upgrade on a component, depending on the vehicle type. The second number is the size of the unit: how many points of armor you get for that basic cost, how much of an increase in acceleration, deceleration, or top speed, etc. The third number is the maximum number by which that entry can be increased, in most circumstances. The entries under base hit points are listed as multiples of the vehicle's hit points based on size and type. Entries marked with an asterisk are listed per size category. For example, a Large wheeled vehicle (six categories) can have a maximum of +6 armor.

HIT POINTS

A vehicle's hit points are a measure of its overall durability and structural integrity. The vehicle's size class determines base hit points, but you can also increase or decrease your vehicle's hit points. Hit points can be increased to a maximum of two or three times the base, depending on vehicle type. Additional hit points are purchased in blocks of 10 at the cost listed in the table. You can also reduce a vehicle's hit points in increments of 10 to lower costs or fit some other objective of your design profile.

Example I

Since the skiffer has a Large size classification, it has 70 base hit points. Since it's supposed to serve as a civilian craft, the Kelenbaum engineers rule out any increase. Since they intend to boost its handling by +1, however, they drop the hit points to 60 to economize. Checking the column for hovercraft, this reduces the cost of the vehicle by 4,000 cr.

Example II

A Colossal ship like the orc raider frigate would normally have 200 hit points. The Naster station dock boss decides to sacrifice some of his vessel's acceleration, deceleration, and top speed to increase the hit point total by 100. The frigate now has a hit point total of 300. Checking the table, this will cost the orcs 500,000 cr, but the dock boss plans to save money elsewhere.

SPEED AND HANDLING

The vehicle's propulsion system and size determine its speed and handling characteristics: top speed (Top Spd), acceleration (Acc), deceleration (Dec), and handling (Hand).

Planetary environments present more obstacles and resistance to vehicle travel than the void of space. Vehicles traveling along the ground or an atmosphere have different speed and handling characteristics. Choose the craft's propulsion system according to the mission profile and the terrain to cross. Modify the vehicle's stats according to size, armor and armament, and increased cargo capacity.

Although size, armor, armament, and increased cargo capacity primarily affect a vehicle's stats, other factors involving the weight and mass of onboard components can modify a craft's speed and maneuverability. Feel free to adjust these stats to take these special instances into account.

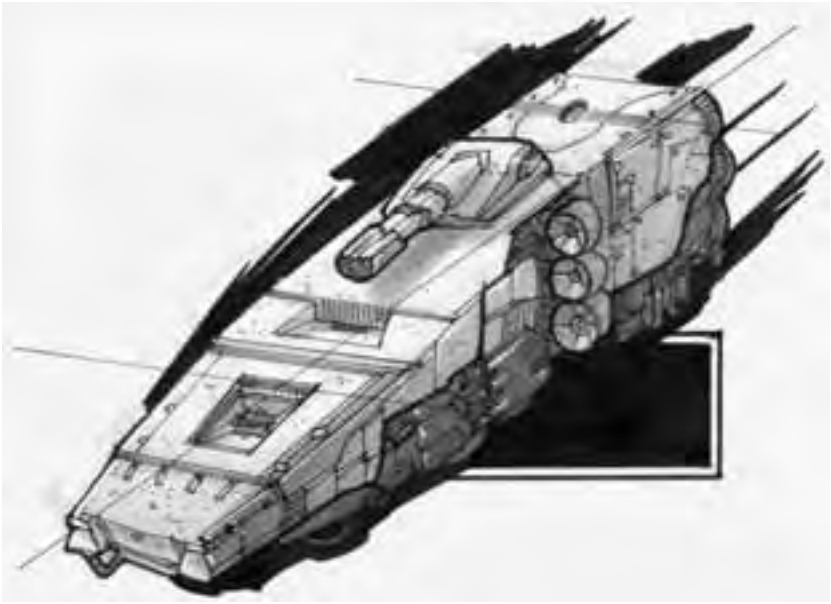
Example I

The Large skimmer has the following base speed and maneuvering stats: Top Spd 18, Acc 3, Dec 1, Hand –1. The designers want better performance

from the craft, so they increase the Top Spd to 27 (+9, 6,300 cr), the Acc to 4 (+1, 700 cr), the Dec to 4 (+3, 2,100 cr), and the Hand to +2 (+3, 1,800 cr). The skimmer now has Top Spd 27, Acc 4, Dec 4, and Hand +2.

Example II

The orc dock master watches his crews assembling the Colossal frigate in the shipyard. A vessel this size would normally have Top Spd 12, Acc 1, Dec 1, and Hand –6. He decides on a trade-off: He's willing to drop the Top Spd, since the ship's primary role will be as a weapons platform to prey on unarmed merchant ships. However, he wants the ship to be able to accelerate and decelerate reasonably well, and he wants to improve the handling. The dock boss drops the ship's Top Spd to 10, for a cost savings of 40,000 cr. He increases the Acc and Dec to 2, for a cost of 10,000 cr each. Finally, he increases the frigate's Hand to –2, for a cost of 40,000 cr. The starship's speed and maneuvering stats now stand at Top Spd 10, Acc 2, Dec 2, Hand –2.



SENSORS

Military ground and atmospheric vessels, as well as all starships, use sensors to navigate terrain and acquire, monitor, and target other craft. The bonus applies to the driver, pilot, or sensor operator's Use Device check to notice other craft, navigational features, or threats; see pages 157–158 of the *Starfarer's Handbook* for details on using sensors during vehicle combat.

Few civilian surface vehicles and aircraft carry sensors. The power requirements often far outweigh their practicality for such small vessels. In some rare cases, however, specialized vehicles incorporate sensors: primarily scout and survey craft.

Vehicles designed specifically for reconnaissance, surveillance, or similar duties frequently have sensor packages boosted between +2 and +10 or more above suggested levels. For instance, although the scout walker is a Huge military vehicle that would normally have +0 sensors, it's primarily a reconnaissance and patrol vehicle: Its sensor rating of +3 represents its boosted sensor capabilities.

Example I

As a civilian hover transport craft, the Kelenbaum skiffer has no need for sensors, so does not include any sensors bonus in its game stats.

Example II

The orc raider frigate is a Colossal vessel, so the dock master installs a standard sensor package for that size ship and type: +5 sensors. He finds no need to further boost the sensors, particularly since it would increase his expenses and strain his already sparse resources. The +5 bonus should allow the ship to identify and target civilian ships that lack stealth. Checking the modifications table, the +5 bonus to sensors costs the orcs 100,000 cr.

STEALTH

A vehicle's stealth rating reflects its size and any special design features used to mask it from electronic detection and tracking. These countermeasures often take the form of simple camouflage color schemes (for ground and atmospheric craft) and special hull engineering to minimize and baffle sensor readings. Some rare ships have additional equipment to jam enemy sensors, or even conceal the vehicle's presence entirely.

Remember that a vessel's speed modifier affects its stealth rating when others try detecting it.

Example I

The KEC skiffer is a Large craft; it would normally have a stealth rating of 5. The designers choose not to increase this value, as the skiffer is a civilian vehicle.

Example II

As a Colossal vessel, the orc frigate has a stealth rating of 1. The Naster construction boss managed to

salvage some military grade sensor baffling from a patrol ship the raiders destroyed, and takes the extra time, effort, and expense to install this around the frigate's engine cowling. This gives the ship a +14 bonus to its stealth, for an overall stealth rating of 15. This enhancement costs the orcs 280,000 cr.

ARMOR CLASS

Besides size, Armor Class also serves as a governing factor during a vehicle's design stages. As objects, all vehicles have a –5 Dexterity penalty to AC. Size modifiers also affect AC. These tend to lower a craft's AC significantly. Bonuses for natural armor, armor, and shields frequently offset a low AC. You must outfit a Colossal III or larger vehicle with enough natural armor or armor to raise its Armor Class to a minimum of 1.

A bonus for natural armor reflects sturdy construction. Civilian vehicles of Huge classification and smaller rarely have natural armor bonuses. Military vehicles and spacecraft (including civilian starships) frequently have natural armor bonuses depending on their size.

Only Large or bigger vehicles have sufficient power and structural fortitude to carry sufficient armor to modify AC. Some vehicle designs intentionally lower armor ratings to accommodate other engineering features, such as flight decks and hangars, sensor booms, mine-laying bays, and specialized equipment covering or emerging from the hull.

Shields require massive amounts of power; only spacefaring vessels possess the energy to deploy shields. Only official military craft have the authority to install them, often at well-guarded naval bases and shipyards. Pirates, smugglers, and others living on the edge of the law manage to equip their vessels with shields at secret stardock facilities, hidden bases, and ports serving underworld clientele. Since shields often interfere with specialized equipment mounted on or emerging from the hull, some starships intentionally lower their shield rating.

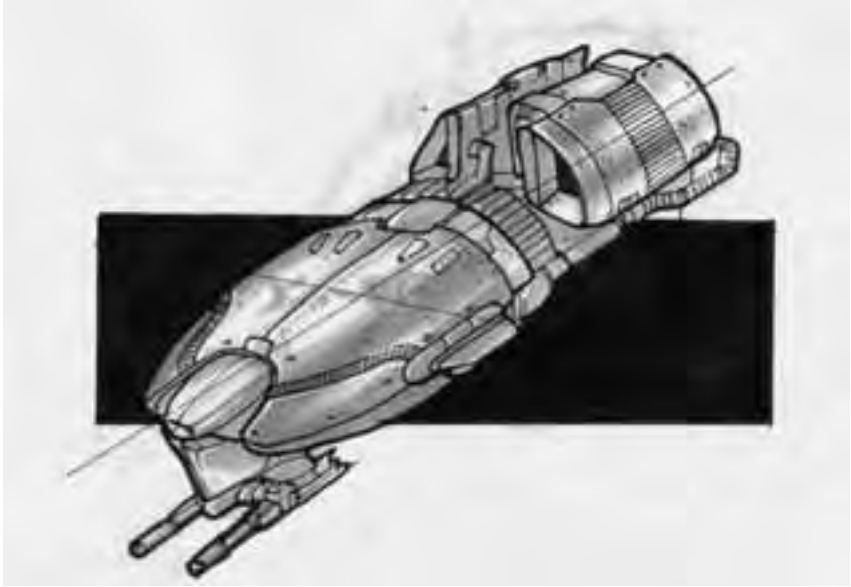
Example I

Since the KEC engineers plan to design a Large skiff, it already has a –1 AC modifier for size. It has no natural bonus to AC, and as a civilian vessel, it foregoes any armor or shield bonuses. This gives it AC 4 (–1 size, –5 Dex).

Example II

The Naster construction dock boss needs to construct a raider ship with adequate armor for combat. As a Colossal ship, the frigate begins with a –8 size modifier to AC, but a +6 natural bonus for the strength of its structural engineering. Although it

doesn't belong to any official military force, the frigate is considered a military vessel by its basic mission profile: to prey on other ships. The salvage gangs manage to cobble together enough armor plating to give the ship a +5 armor bonus to AC. This costs 50,000 cr. The frigate's power plant could support a shield generator, and the salvage gangs at Naster station manage to find one in the engineering section of an old convoy escort. This provides an additional +12 shields bonus to AC, but costs 1.2 million cr. The orc raider frigate now has AC 20 (–8 size, –5 Dex, +6 natural, +5 armor, +12 shields).



SPECIAL QUALITIES

This category lists a craft's unusual abilities, modifications of note, or other characteristics that set it apart from other craft.

All vehicles have the "vehicle" special quality in their stats. The rules pertaining to vehicles in Chapter Nine of the *Starfarer's Handbook* apply to a particular craft with this notation. All vehicles also have the special quality of hardness, as explained below.

Hardness: Most vehicles have the special quality of hardness. The stat notation includes a number representing the value of hardness. When a vehicle receives a hit, subtract the hardness value from the damage. Anything left over penetrates the vehicle's hull and inflicts damage against its hit points. Hardness values for each size of ship are listed with the vehicle templates.

Example I

The KEC skimmer automatically takes the "vehicle" special quality and gains hardness 8 as a Large vehicle. The engineers choose not to enhance it with other special qualities since they're only supposed to design a swift civilian transport.

Example II

The orc raider frigate automatically takes the "vehicle" special quality and gains hardness 30 as a Colossal vessel.

FUEL

The fuel rating for each vehicle size category represents the average distance a craft can travel, in miles, without refueling. These numbers are open to a great deal of adjustment depending on an individual vehicle's specifications and type. Military surface vehicles typically have 25% less fuel capacity than their civilian counterparts thanks to increased armor and ordnance. Some surface vehicles with higher-than-average top speeds have lower fuel ranges.

Example I

The Large skiffer the KEC has designed as a swift ground craft would normally travel 300 miles before it required refueling. Since they intend it primarily to haul cargo over significant distances, the engineers add 100 miles to this range. This costs 1,500 cr. The skimmer's final fuel range is 400 miles.

Example II

The orc frigate is a Colossal vehicle, so it begins with a fuel range of only 150 miles. This obviously won't do for a spacefaring ship, even if it has a starcaster. The construction boss installs two fusion drives, expanding the ship's maximum range without refueling to 250,000 miles. This costs the orcs 249,850 cr.

STATIONS

The vehicle size templates show the base stations that come with vehicles of various sizes. As with other vehicle stats, the number of stations may vary among different craft of the same size. Large space-going ships might have additional specialized stations depending on sensors, weapon compliment, and mission profile. For instance, a carrier has 200 more crew than a normal Colossal IV ship because they must support flight operations from the launch bay. Ships of sizes Colossal III and larger no longer require a

WEAPON CAPACITY

Size	Weapons	Max Size
Fine	1	Tiny
Diminutive	1	Tiny
Tiny	1	Small
Small	1	Medium
Medium	1	Large
Large	2	Huge
Huge	3	Gargantuan
Gargantuan	2	Starship
Colossal	4	Starship
Colossal II	10	Starship
Colossal III	20	Starship
Colossal IV	50	Starship
Colossal V	100	Starship
Colossal VI	150	Starship

single pilot; a commander coordinates the crew's actions and seeks to direct them as a single entity.

Example I

Large vehicles typically have one pilot station and four passenger stations. The Kelenbaum engineers could locate the control station fore or aft of the central cargo capsule, but they decide to place it over one of the two engines symmetrically mounted on each side of the freight pod. To balance things out, they add one more station over the other engine for a passenger. They drop three passenger stations and reduce the cost of the vehicle by 450 cr.

Example II

The Colossal orc raiding frigate has one pilot station and 100 passenger stations based on its size. The designers switch out one of the passenger stations for a sensor station. Since the ship fields two batteries of guns, it also needs two gunners. A vessel of its size also requires a compliment of 20 crewmembers to look after the ship's systems and maintain its operational status. The dock boss reduces the 100 passenger stations to one sensor station, two gunner stations, 20 crew stations, and 23 passenger stations, for a total reduction of 50 passenger stations. This saves the orcs 50,000 cr.

CARGO

Cargo capacity can vary widely based on vehicle size, type, and mission profile. Massive warships sometimes replace storage space with ordnance, shields, and mission-specific equipment. Freighters and other craft specifically designed to move cargo might have double or even triple the normal freight capacity. Given their vast size, starships frequently list their cargo capacity in tons, one ton equaling 2,000 pounds. For all vehicles, cargo capacity can be adjusted at a rate of 1 cr per pound of additional cargo.

Example I

As a Large craft, the Model E-298 skiffer would normally have a 200-lb. cargo capacity. Since the Kelenbaum engineers designed it specifically to haul freight, they give it a cargo capacity of 10,000 lb.—roughly equal to its weight. This isn't as impressive as a larger ground hauler, but considering the skiffer's speed and maneuverability, it pays off. The expanded cargo capacity costs the engineers 9,800 cr.

Example II

The Naster dock master notes that a standard Colossal vehicle has a cargo capacity of 10 tons. He's not overburdening his ship with special equipment, so he keeps that value as the frigate's final cargo capacity.

WEAPONS

Military ships mission profiles require them to carry weapons to fulfill their roles. Most civilian vessels are unarmed. Only those requiring protection far from the Imperial Navy's reach mount ordnance, in many cases without the authorization of local or Imperial governments.

A vehicle's compliment of weapons directly relates

to its size. Consult the Weapon Capacity table for guidelines regarding the number and size of ordnance craft of a particular size category can carry.

Depending on their mission profile, some vehicles include larger numbers of smaller weapons or fewer larger ones. Craft with more than one weapon mounting can take ordnance of at least one size category lower on one weapon slot—or eliminate that slot altogether—while fielding ordnance of one size higher in another. However, only spacecraft may be equipped with starship weapons.

Vehicles with smaller weapons than the maximum size allowed can mount one more than listed. For instance, if an engineer fitted weapons to a Huge utility truck, she might place up to four Huge weapons on the hull. This practice often proves impractical with starship weapons, since they rely on range to strike targets across the vast distances of space.

When determining the number of weapons on a vehicle, count twin, triple, and quad batteries as two, three, and four weapons each. The mounting machinery for batteries takes more room than single weapons, thus canceling out any benefit of ordnance clustered in this manner.

COMMON WEAPON LISTINGS

The entries below reflect the weapons most frequently installed on vehicles and starships. The list does not cover personal sidearms modified for vehicle mounts, or less-conventional weapons rarely seen on vessels. Individual ship designs determine whether weapons are fixed along a particular fire arc or contained within turrets. (Note that ranges appear in terms of "squares," per the scale rules on page 150–51 of the *Starfarer's Handbook*.)

Large

Assault blaster: Attack bonus: +2 (targeting computer); Damage: 4d10; Range: 4. A favorite among those modifying ordinary vehicles for military roles, the assault blaster offers superior firepower.

Flamethrower: Attack bonus: +2 (targeting computer); Damage: 3d6; Range: 1. Some ground vehicles and drop-ships mount flamethrowers to quickly clear areas of enemy personnel, ignite flammable materials in the area, or screen troop deployment by fire and smoke.

Grenade launcher: Damage: 6d6; Range: 4. Ground vehicles employ grenade launchers to provide indirect infantry fire support and offer resistance to pursuing units.

Huge

Blaster cannon: Attack bonus: +2 (targeting computer); Damage: 8d10; Range: 10. Although it packs more punch than a laser cannon, blasters drain a vessel's engines more, often resulting in lower speed characteristic (top speed, acceleration/deceleration) and shorter fuel range.

Heavy machinegun: Attack bonus: +2 (targeting computer); Damage: 3d6; Range: 8. Some might view slugthrowers as too primitive to mount on vehicles, but they provide massive autofire and suppressive fire without consuming power directly from a vessels engines. Heavy machineguns are popular weapons for vehicles with infantry support roles.

Laser cannon: Attack bonus: +2 (targeting computer); Damage: 6d10; Range: 10. Standard ordnance for many military vehicles, the laser cannon serves as a formidable weapon without exhausting a vessel's power supply.

Gargantuan

Multishot missile launcher: Damage: 6d10; Speed: By missile. Missile launchers give vessels long-range strike capability with a variety of warheads. Vehicle-mounted multishot missile launchers usually pack between 4 to 16 missiles.

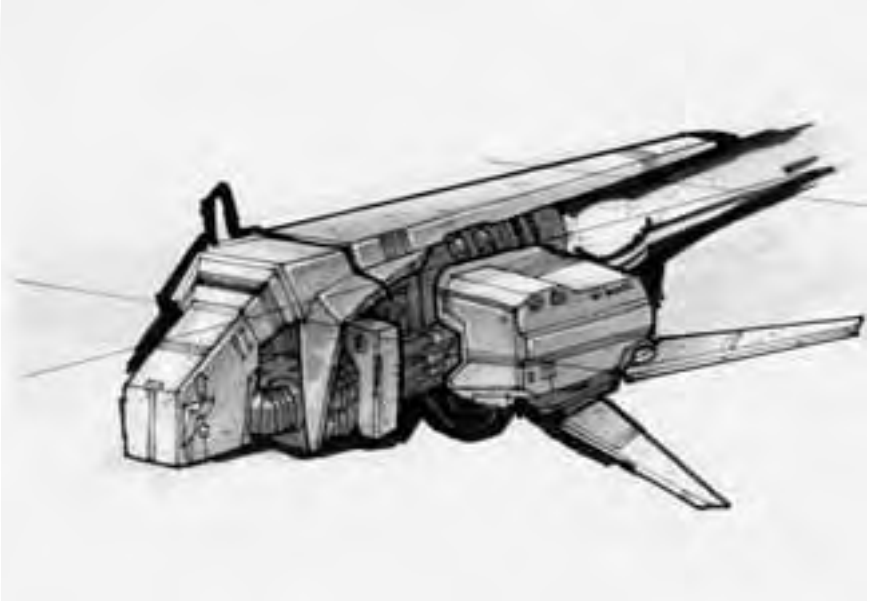
Plasma cannon: Attack bonus: +2 (targeting computer); Damage: 10d10; Range: 15. The plasma cannon is one of the most powerful weapons one can mount on a surface vessel or aircraft.

Rifled cannon: Attack bonus: +2 (targeting computer); Damage 8d12; Range 20. More primitive military vehicles—or illegal ones with ordnance scavenged from old weapons—sometimes mount basic rifled cannon firing explosive projectiles.

Starship

Batteries: Weapons mounted in double, triple, or quad batteries have similar attack bonuses and ranges as the starship-sized varieties listed below, but double, triple, or quadruple the standard amount of damage listed. For instance, a twin laser cannon battery would inflict 6d10x2 damage, while a quad plasma cannon battery would cause 10d10x4 damage. Batteries count as two, three, or four weapons when determining how much ordnance a starship can carry.

Ion cannon: Attack bonus +5 (targeting computer); Damage 10d12x4; Range: 20. This electrical weapon plays havoc with enemy ships' wiring, command circuitry, and overall operation. Only the



largest vessels mount these weapons since they drain massive amounts of power from the engines.

Laser cannon: Attack bonus +5 (targeting computer); Damage 6d10; Range: 5. Laser cannons have become almost standard ordnance on most spacefaring vessels requiring a minimum degree of armament.

Plasma cannon: Attack bonus +5 (targeting computer); Damage 10d10; Range: 10. A more heavy-handed shipboard weapon, the plasma cannon serves ships of the line to provide firepower for every kind of naval action.

Railgun: Attack bonus +5 (targeting computer); Damage: 10d12; Range: 15. This antiquated weapon shoots projectiles using recoilless magnetic acceleration. The railgun is a cheaper alternative to other weapons, but a small drain on a ship's power supply.

Torpedo bay: Torpedo bays consist of launch assemblies and targeting interfaces used to fire spaceborne torpedoes. Each bay can launch one torpedo at a time. Torpedo bays cost 10,000 cr per size category of the vehicle.

Example I

As an unarmed cargo vessel, the KEC skiffer mounts no weapons. Should it require quick conversion to a military role, the designers made structural allowances for the Large vehicle to mount two machineguns above the engines and forward of the pilot and passenger stations.

Example II

The stardock boss knows he can mount up to four starship weapons on the hull of his Colossal frigate. Since the craft is intended for use primarily in ambush actions, he opts for two forward-firing torpedo bays. These cost 90,000 cr each. The orcs also purchase 20 torpedoes, for a cost of 20,000 cr. For all-around defense and additional firepower during attacks, he chooses a twin plasma cannon battery in a dorsally mounted turret. The twin cannon costs 50,000 cr.

Market Price

With so many variables in the design process, a vessel's cost can differ greatly from others of similar size. Begin with the cost of the base vehicle template, then add any modifier for vehicle type. Finally, add up the costs of all the modifications you make to the vehicle. This determines its final cost.

Example I

Adding its base cost to the cost of all its modifications, the skiffer has a final total market price of 40,050 cr: Not bad at all for a fast, maneuverable hovercraft with a 5-ton cargo capacity.

Example II

The base cost of a Colossal spacecraft is 500,000 cr. Adding the price of the modifications and weapons, as well as 1,250,000 cr for a starcaster and antigrav, the total base price is 4,349,850 cr. This is a military spacecraft, however, so this total price is multiplied by 3, for a final total of 13,049,550 cr. The frigate doesn't offer the speed and performance of a corvette, but it's considerably cheaper.

Completed Craft

The two craft from the examples have completed their design stages and enter production. Their descriptions and stats reflect the original mission profiles and engineering parameters under which they were commissioned.

Kelenbaum Model Model E-298 Cargo Skiffer

Kelenbaum Diversity Enterprises designed its surface skiffer to serve as a swift and light freight hauler. Although it can carry only 400 lb. of cargo, the vehicle's high speed, good maneuverability, and second passenger station help it serve as a multipurpose surface transport well suited to covering the vast dis-

tances and varied terrain between outlying settlements on newly colonized worlds. The skiffer is best suited for transporting small, time-sensitive cargoes, such as agricultural supplies, medicine, and seedlings, as well as messages and news in case of transmission disruption.

The skiffer consists of a central, elongated cargo module with an aerodynamic forward section. Two engines, one mounted on each side of the freight pod's aft section, provide vectored lift, propulsion, and maneuverability. A single pilot can operate the E-298 skiffer from a position above the portside engine, though a seat on the starboard side provides room for one passenger.

Model E-S98 Cargo Skiffer: Large Vehicle; hp 60; Top Spd 27; Acc 4; Dec 4; Hand +2; Stealth 5; AC 4 (–1 size, –5 Dex); SQ vehicle, hardness 8; Fuel 400.

Stations: Pilot 1, Passenger 1

Cargo: 10,000 lb.

Cost: 40,050 cr.

GALINAK RAIDER FRIGATE

Commissioned to serve as an orc raider in the fleet of pirate ships prowling the Galinak Reaches, this frigate is typical of other vessels serving in that role. Assembled from the salvaged hulls and systems of captured vessels, the ship is small enough to use the asteroids of the Reaches for hit-and-run attacks. Two torpedo bays provide firepower to attack and disable enemy ships, and a turret with a twin plasma cannon battery covers all fire arcs for point defense and additional fire support. The frigate also carries adequate armor to withstand enemy fire and sensor baffling around the engines to better mask its presence from unsuspecting prey vessels.

Galinak Raider Frigate: Colossal Vehicle; hp 300; Top Spd 10; Acc 2; Dec 2; Hand –2; Sensors +5; Stealth 15; AC 20 (–8 size, –5 Dex, +6 natural, +5 armor, +12 shields); SQ vehicle, hardness 30; Fuel 250,000/3.

Stations: Pilot 1, Sensor 1, Gunner 2, Crew 20.

Cargo: 10 tons.

Cost: 13,049,550 cr.

Weapon: 2 torpedo bays; Fire arc: front; Damage: 6d10x5; Speed: 50.

Weapon: Twin plasma cannons (battery); Fire arc: turret; Attack bonus: +5 (targeting computer); Damage: 10d10x2; Range: 10.

VEHICLE MODIFICATION COSTS

	Wheeled Vehicle	Tracked Vehicle	Walker	Hovercraft	Watercraft	Submarine	Aircraft	Spacecraft
Base Hit Points	1000/10/x2	1,000/10/x3	2000/10/x3	4,000/10/x2	6,000/10/x2	10,000/10/x3	20,000/10/x2	50,000/10/x3
Top Speed	500/1/+30	600/1/+20	700/1/+10	700/1/+30	700/1/+20	1,000/1/+10	5,000/1/+30	20,000/1/+30
Acceleration	500/1/+3	600/1/+2	700/1/+2	700/1/+3	600/1/+2	1,000/1/+2	2,000/1/+5	10,000/1/+5
Deceleration	300/1/+4	400/1/+3	500/1/+4	700/1/+3	600/1/+2	1,000/1/+2	2,000/1/+5	10,000/1/+5
Handling	400/1/+3	500/1/+2	600/1/+5	600/1/+2	700/1/+2	1,200/1/+2	2,000/1/+20	10,000/1/+10
Sensor	1,000/1/+5	1,000/1/+5	1,000/1/+5	1,000/1/+5	1,000/1/+5	1,500/1/+5	2,000/1/+10	5,000/1/+10
Stealth	1,500/1/+12	1,500/1/+12	1,500/1/+12	1,500/1/+12	2,000/1/+5	2,000/1/+15	5,000/1/+25	20,000/1/+25
Natural Armor	1,000/1/+1*	10,000/1/+2*	1,200/1/+2*	1,500/1/+1*	1,000/1/+2*	1,500/1/+1*	2,500/1/+1*	10,000/1/+20*
Armor	1,000/1/+1*	10,000/1/+2*	1,200/1/+2*	1,500/1/+1*	1,000/1/+2*	1,500/1/+1*	2,500/1/+1*	10,000/1/+20*
Shields								100,000/1/+10*
Fuel	100/10/+200	100/10/+300	100/10/+200	150/10/+300	150/10/+3,000	200/10/+5,000	500/10/+10,000	1/1/+1,000,000
Stations	100/1/+100	100/1/+100	100/1/+20	150/1/+100	150/1/**	200/1/+1,000	500/1/+500	1,000/1/**
Cargo	1/1/***	1/1/***	1/1/***	1/1/***	1/1/***	1/1/***	1/1/***	1/1/***
Weapons	by weapon type and cost							

* Per size category

** There is practically no hard limit to the number of stations that can be incorporated on watercraft and spacecraft. Massive floating cities and vast starliners that can support thousands of people are not uncommon in the Empire.

*** As with stations, cargo capacity can vary greatly. A vehicle may be designed to transport up to two or three times its own mass in cargo. Additional cargo capacity can be purchased for a flat rate of 1 cr per additional pound of cargo.

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